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Textile World

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*Editor:* Douglas G. Woolf

# *The Wool Institute Case*

SARDONIC laughter was heard in the wool industry this week. Its members have been restrained from carrying on any collective activities which might be construed to be at variance with the anti-trust laws.

To the "man in the street," no doubt, this news conjured up cartoonists' visions of a ruthless trust fattening upon the down-trodden public. To the man in the industry, familiar with 1930 conditions, this fantasy must seem somewhat incongruous.

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No bitterness was involved in the steps leading to the filing of the "consent decree" entered against the Wool Institute. It was evident that the Institute was not trying to "get away" with anything; that the activities complained of were undertaken in good faith; and that no reflection is cast upon the many constructive plans which constitute the bulk of the Institute's program.

We regard the acceptance of a "consent decree" as a tactical error on the part of the Institute, but that is incidental.

The fundamental issue arising from this case is the question of the means to be employed in inducing manufacturers to sell their goods at a profit instead of a loss.

That was the real objective of the specific activities mentioned in the suit against the Institute. The decree re-affirms our conviction that cooperative action can serve only as an educational force in the attainment of that objective.

An institute or an association can supply and interpret to members statistics reflecting conditions in the industry concerned; it can furnish sound information and help on cost principles and technique; and it can demonstrate the suicidal effect of the naming of uneconomic prices. Beyond this point, it is up to the individual. Any attempt to effect mutual agreements on price matters is not only illegal but ineffective.

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We hope—and believe—that some day our national conception of "unfair competition" will change. We look for a realization of the fact that sellers of goods at unprofitable prices are demoralizing the market and therefore acting "in restraint of interstate trade and commerce"; and that they are as culpable as are the sellers who conspire to bring about artificially inflated prices.

General adoption of this view-point, however, demands first the education of each *individual* as to his responsibility toward his competitors and toward the market as a whole. It is in this direction that the textile organizations have rendered, and must continue to render, their greatest service.

# The Week in Textiles

### *Outlook . . .*

LOW PRICES have stimulated sales of cotton goods but only at figures not generally accepted. Sellers hope that bottom levels have been passed. Much depends on raw cotton but with the staple unchanged it is apparent that a resistance point has been touched in goods. . . . . Wool goods mills expect improvement before the end of this month as retailers buy clothing for fall. The latter part of June was dull. Trend is for a trading down with the popular priced lines the best. . . . . Hosiery specialties are fairly steady but half hose is weak. Underwear is spotty. Bathing-suit call will probably run later than usual. . . . . With raw silk under $3.00, the trade is a bit pessimistic as buying of silk manufactures is slow. Eventually the stimulus of the low price must be reflected in sales, many believe.

### *N.A.C.M. to Meet at Poland Springs . . .*

THE BOARD OF Government of the National Association of Cotton Manufacturers met on June 27 in the Tercentenary House of Pequot Mills, Salem, Mass., and arranged for the annual meeting of the association to be held early in October. . . . . Philip Dana of Westbrook, Me., first vice-president of the organization, was appointed chairman of the program committee. Poland Springs, Me., was selected as the place for the gathering, which will be an outing as well as a business session. . . . . The visit of the board to the Tercentenary House was the first on the part of representatives of the industry. The house, which is a reproduction of a 17th century American home, is now open to the general public as a guest house.

### *May Wool Figures . . .*

WOOL CONSUMPTION for May (in grease equivalent) is reported by Department of Commerce as 32,640,860 lb., compared with 36,794,262 lb. for April and 48,764,676 lb. for May, 1929. The high mark since January was February, with 38,329,631 lb. . . . . Percentages of machinery in the wool industry active in May show no great change, but slight improvement on the worsted end. . . . . The figures are: Combs, 61.6%, cards 61.9, worsted spindles 54.2, woolen spindles 61.3, wide looms 46.1, narrow looms 54.2 and carpet looms 49.8. Figures on percentage of single shift capacity worked show looms to average less than 50%, with cards and combs over 60% and spindles between 50 and 60%.

### *British Rayon Gains in May . . .*

BRITISH RAYON production in May was 4,100,000 lb. against 3,200,000 lb. in April and 3,900,000 in March. Consumption in May almost equaled production, while in both April and March there was large surplus. . . . . Numbers unemployed in the British silk and rayon industries fell by nearly 5,000 in May. . . . . This information was received by cable this week.

### *Delays Army Blues . . .*

REPRESENTATIVE RODGERS' blue uniform bill seems destined to languish in committee until December. Hearings were held last week at which General Ewing Booth, assistant chief of staff, stated that "the introduction of a blue uniform at this time with the additional cost involved is not in accordance with the financial policy of the President." . . . . The bill authorizes an appropriation of $1,202,000 for a dress uniform for the 70,000 privates on non-tropical duty, to replace one issue of olive drab.

### *Loss Through Unemployment . . .*

UNEMPLOYMENT IS no better in June, according to reports received by William Green, President of the American Federation of Labor. In a statement issued last week he said: "Unemployment in the first six months this year has meant a loss to the country equivalent to wiping away the entire product of manufacturing industry in the United States for one

## *Cooperation Extends to Exports*

THE GERM of cooperation propagates slowly. However the contagion, once started, spreads steadily.

The cotton textile industry is demonstrating that fact. It caught the bug in Atlanta four years ago and gradually all parts of its organization are becoming infected.

This week, cooperation spread definitely to the export problem. Representatives of 17 firms endorsed the idea of the formation of an export association and laid plans for an organization meeting July 15.

Probably in no phase of textile endeavor is coordinated action so necessary as in exporting. The complex problems involved in selling to foreign markets make some type of joint representation or combination necessary.

Furthermore, in no phase is coordinated action legally permissible with so little restraint. The Webb-Pomerene Act offers the opportunity for a type of cooperation impossible in domestic trade.

By availing itself of the provisions of this act, the cotton textile industry is taking another vital step in the process of curing itself from within.

*"Tercentenary House" at Salem, Mass., a reproduction of a 17th century American home which serves as a guest house for the Pequot Mills which may be seen on the right of the picture. Opening of the house was described in these columns last week*

week and every building constructed in two months in the 36 eastern States. We estimate that wage earners have lost over $2,000,000,000 in wages through unemployment in the first six months this year. . . . . The federation preliminary estimate of the total number unemployed in May is 3,600,000. This figure does not include office workers or farm laborers. The preliminary figure shows a gain of only 3% since February when 3,700,000 were out of work. The loss in wage earner purchasing power has been of major importance in prolonging business depression. . . . . Our June figures show a very serious unemployment situation. Nevertheless, the fact that June shows no improvement over May is not cause for discouragement as to the future. Layoffs always come with the beginning of the summer dull season in June."

## *Powdered Cotton . . .*

THERE'S NO END to the versatility of cotton, says the New Orleans *Times-Picayune*. The very latest use of the white fiber is in powdered form. . . . . "The South's great product is being put up in powdered form like so much talcum, though not, we believe, for cosmetic purposes. Cotton powder manufacture is a highly specialized French industry, the output being many hundreds of metric tons a year. It is used, among other things, as a plastic material, entering into the manufacture of certain molded products, as a filler in various fabrics and for admixture with synthetic resins used in the manufacture of phonograph records, and electrical and radio products. We might add, however, that powdered silk and powdered wool also have become industrial commodities of specialized use."

## *Stresses Launderability of Cotton . . .*

COMFORT AND launderability of styled cottons are featured in an illustrated pamphlet that is being distributed to laundries throughout the United States by The Cotton-Textile Institute, C. K. Everett in charge of the Institute New Uses Section has announced. . . . . "Cotton is the most attractive as well as the most practical summer fiber," the pamphlet states. "The sun will not rot it. If you buy a guaranteed fast color fabric, the sun cannot fade it. If you buy fast color fabrics you can dress your children and yourself in your favorite and most becoming shades and send them to your laundry with perfect assurance that the end of the summer will find their colorful beauty undimmed and unchanged." . . . . In stressing the launderability of cotton the Institute is offering these pamphlets to laundry owners for further distribution as package enclosures as a means of supplementing the educational and promotional work which laundries have been conducting through the Laundryowners National Association.

## *On Trade Practice Rules . . .*

AS THE usefulness of trade practice rules depends upon their practical application and not upon mere theorizing, the industries operating under such codes have requested the Federal Trade Commission to postpone until fall such revision of the rules as, in its judgment, is necessitated by its stricter interpretation of the anti-trust laws. . . . . In the meantime the conference industries are planning to thrash out the question at a meeting to be held during the last week in September at Niagara Falls, Ont., in connection with the convention of the American Trade Association Executives. The representatives of all industries which have held a trade practice conference under the Commission's auspices will be invited to this meeting.

## *Seek Leather Substitute . . .*

THE SECOND annual appropriation of $8,500 for research in the development of a textile substitute for leather in gloves and shoe soles has been allocated to the Bureau of Standards by the War Department. . . . . Experiments with plastic binding materials during the last fiscal year have developed a cellulose solution which appears promising in the laboratory. Cotton is expected to be the textile used, although none of the commercial lots tested has shown itself satisfactory. A cloth with a burlap-like weave, but with a more durable fiber, having a hard twist as in cotton yarn, is said to be the sort of material desired.

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TEXTILE WORLD is a consolidation of *Textile World Record* and *Textile Manufacturers Journal*, effected in 1915.

*Textile World Record* was the paper resulting from the merger, in 1903, of *Textile World* and *Textile Record*. The former was founded in 1888 by Walter B. Guild and Henry G. Lord. In 1895 it absorbed *Industrial Record*, formerly *Manufacturers Review and Industrial Record*, which was started in Boston in 1868. *Textile Record* was founded in 1880 in Philadelphia by Charles Heber Clark and Frank L. Nagle.

*Textile Manufacturers Journal* was founded in New York in 1894 by Joseph H. Bragdon. The merger of *Textile World Record* and *Textile Manufacturers Journal* in 1915 resulted in the formation of Bragdon, Lord & Nagle Co., Inc., and publication of *Textile World Journal*, later shortened to TEXTILE WORLD.

In 1923, *Possell's Textile Journal* was absorbed by TEXTILE WORLD; and in 1924 *Textiles* was also absorbed.

In 1928, TEXTILE WORLD became affiliated with the McGraw-Hill Publishing Co.

The editorial staff of TEXTILE WORLD consists of: Douglas G. Woolf, editor; William B. Dall, managing editor; Edwin D. Fowle, associate editor; John Black, A. Henry Thurston, Winn W. Chase and James A. Austin, assistant editors; Ralph C. Maultsby, southern editor; William H. Butler, New England editor; Warren C. Steele, Philadelphia editor; N. Waldron and J. C. Wright, editorial assistants.

[NOTE: The above historical summary is published in the first issue of each volume for purposes of record.]

# Wool Institute Accepts Consent Decree Enjoining Activities on Price and Opening Dates

THE Department of Justice filed suit against the Wool Institute on June 27, under the Sherman Anti-Trust Act, charging an unlawful conspiracy tending to fix prices in wool goods and wool yarns. Along with the filing of the suit and upon consent of the attorneys for the institute, a decree was entered, prohibiting the practices complained of.

It was alleged specifically that on Dec. 11, 1929, officers and agents of 84 weavers, at a meeting of the institute, unanimously passed a resolution and entered into an agreement definitely to maintain throughout the season their established spring prices on all new and duplicate business for the spring of 1930. Subsequently an announcement of this agreement was published in trade journals over the names of the mills concerned.

Other allegations concern the fixing of uniform opening dates and agreements to withhold such goods from the market until the date fixed.

A statement issued by the department mentioned that the petition is not directed at the work of the institute as a whole, but that it concerns certain specific practices which are considered illegal.

The institute committed the act complained of in good faith and as a means of stabilizing the industry at a critical period. At the time, this effort was highly commended and had wide support and approval throughout the trade, both from buyers and sellers.

The ultimate effect of the consent decree is a matter of guesswork. The acceptance of a consent decree is regarded by some as a tactical error, due to two fundamental objections—(1) the defendant tacitly admits the charge of law violation, and, (2) more important, such a decree ties the hands of the defendant on the practices covered. Those who have had to bow to a decree in a contested case have been considered free thereafter in their operations to keep step with the subsequent interpretations that may be given to the anti-trust laws by the courts, while the defendants in a consent decree are regarded to be bound strictly by its terms. Furthermore, every anti-trust case that is carried to the Supreme Court produces a supplementary and possibly a more specific interpretation of what a trade association can and cannot do under the law. It is only by a continuing series of such decisions that the laws can be brought into harmony with economic change.

Officials of the institute pointed out that other work such as the collection and publication of statistics regarding sales, production, style service, etc., is not interfered with.

### Statement by A. D. Whiteside

The following statement was issued by A. D. Whiteside, president of the Wool Institute:

The Department of Justice, after completing a thorough investigation of the activities of the Wool Institute, today brought a civil action in the United States Court, which was not directed against any officer or member of the institute personally. The attorneys for the institute, Lee, Swan & Donoghue, consented to a decree restraining the members of the institute from carrying on any collective activities which might be construed to be at variance with the Sherman Anti-Trust Law or the Clayton Act.

The investigation of the institute was made along the general lines followed by the Department of Justice in investigating the activities of trade associations or institutes in many other lines of industry.

The decree will have a beneficial effect on the wool industry as a whole, in that it clears the atmosphere of any misunderstanding that may have existed regarding the interpretation of the law or the act, and gives the wool industry of the United States a clear sailing chart, laying down a specific course, pointing out those activities which cannot be carried on, and by inference and deduction giving full scope to a continuation of the procedure now followed.

The officers and members of the Wool Institute desire to conduct activities in strict accordance with the law and accordingly welcome a court decree which will be an accurate guide for their operations.

### Statement by Department of Justice

The report of the Department of Justice is as follows:

Following an investigation over a period of several months into the activities of the Wool Institute, Inc., the Department of Justice on June 27, filed in the Federal Court for the Southern District of New York a bill in equity against that organization alleging that it and its various member companies, all in the woolen industry, have engaged in a combination in restraint of trade. The petition of the Government is not directed to the work of the institute as a whole but concerns certain specific practices which are considered illegal under the Sherman Anti-Trust law. Upon the consent of attorneys for the institute a decree has been entered prohibiting the practices complained of.

The petition charges the existence of certain group activities which tend to fix and enhance prices. It sets forth a system of reporting future prices. A portion of the petition is directed to the individual price maintenance agreements executed by the member companies and filed with the institute. Emphasis is placed upon a meeting of a large group of member companies on Dec. 11, 1929, at which a resolution was passed whereby the men's wear mills agreed to definitely maintain their established spring prices throughout the season. This arrangement was prominently advertised in several newspapers of wide circulation. Other allegations have to do with the fixing of uniform opening dates on which certain classes of goods are offered for sale, and agreements to withhold such goods from the market until the date fixed.

The decree, which was entered on the consent of attorneys for the Government and for the institute, enjoins the institute and those connected with it (a) from carrying out the purposes of the combination, (b) from agreeing upon, either expressly or impliedly, or concertedly, fixing, establishing or maintaining any price, price range, price enhancement or other part of the ultimate price of woolen products, (c) from exchanging future price information, (d) from entering into any agreement for the maintenance of any price or schedule of prices on woolen products over any period of time, and (e) from entering into any agreement fixing the opening date for the sale or offering for sale of woolen products or in any way restricting the freedom of any company to choose the dates on which, or the prices at which its products will be sold.

# Export Association Plan Endorsed by 17 Cotton Textile Firms

*Floyd W. Jefferson, who presided at export meeting on Tuesday*

ANOTHER vital step in the concerted program for the rehabilitation and stabilization of the cotton textile industry was taken on Wednesday of this week when representatives of 17 firms met and endorsed the idea of the formation of an export association under the provisions of the Webb-Pomerene Act. Organization work is to be effected at a further meeting to be held July 15. It is probable that the new body will be called the Textile Export Association of the United States.

Tuesday's meeting was held in the rooms of The Association of Cotton Textile Merchants of New York. Floyd W. Jefferson, of Iselin-Jefferson Co., presided.

This project has been under consideration for several months by committees representing The Cotton-Textile Institute and The Association of Cotton Textile Merchants of New York. These committees finally placed before the meeting this week a definite recommendation that an export association be formed under the provision of the Webb-Pomerene Act and that this association be the medium of furthering cooperation among exporters of cotton textiles with respect to uniform terms of payment and other matters which might properly be the subject of group action to increase export business in American cotton goods.

A proposed constitution for the association was presented at the meeting for the consideration of prospective members and those present voted unanimously to hold another meeting on July 15 for the purpose of forming the association.

### Names of Firms Represented

The following firms were represented at this meeting: Amory, Browne & Co., Joshua L. Baily & Co., William L. Barrell Co. of N. Y., Inc., Bliss, Fabyan & Co., Inc., M. C. D. Borden & Sons, Inc., Brune, Pottberg & Co., Garner & Co., Hunter Mfg. & Commission Co., Iselin-Jefferson Co., Minot, Hooper & Co., Neuss, Hesslein & Co., Pacific Mills, Pepperell Mfg. Co., Prince, Lauten & Co., Tilton & Keeler, Inc., Turner, Halsey Co., and Wellington, Sears & Co.

Other exporters of cotton textiles will be invited to join the proposed association. It is the hope of the committee in charge to make the membership of the new organization one that is representative of cotton goods exporters.

The present committee in charge of work consists of Floyd W. Jefferson, chairman, Jacques Bramhall, S. Robert Glassford, A. G. Kempf and Donald B. Stewart.

### Careful Background Laid

Early in 1929, Walker D. Hines, then president of The Cotton Textile Institute urged the necessity of greater concentration in developing and directing exports of cotton textiles in specific markets either through ordinary processes of joint representation or under the provisions of the Webb-Pomerene Act. Mr. Hines made this suggestion in announcing the results of a special study which had been conducted under his direction.

In November of last year, a number of leading selling agents having direct export departments met with Walker D. Hines, chairman, and George A. Sloan, president, of the Cotton-Textile Institute, and S. Robert Glassford, president of The Association of Cotton Textile Merchants, to discuss the possibilities of increasing the amount of cooperation as to export business in cotton textiles. It was stated at that time that an advisory committee would be selected by the Institute with the view to promoting further discussion of export problems.

Now has come the definite decision to form an export association.

# STAGING THE FIGHT AGAINST

*Second Article in Series*

# Proximity President Cites Advantages of Machinery Modernization

## *An Interview with Bernard M. Cone*

*President, Proximity Mfg. Co., Greensboro, N. C.*

***By Ralph C. Maultsby***

*Southern Editor,* TEXTILE WORLD

IMPROVEMENTS and refinements in textile machinery, wider application of automatic devices, and the resulting trend toward higher and higher speeds in the various processes of cotton manufacturing have combined to necessitate many important changes in those textile mills which have attempted to keep abreast of new developments. The interior of the modern cotton mill today is quite different from that of twenty years ago—a contrast that is apparent even to one not familiar with textile manufacturing.

Every mill executive must recognize the fact that machinery operating in his plant today will eventually succumb to onslaughts of progress. While certain equipment may be comparatively new, its value is subject, nevertheless, to a depreciation which results from the brain-work of those devoted to increased quality and reduced costs in the manufacture of textiles, including machinery designers and mill men alike. We must give full consideration to the factor of obsolescence and set aside reserves for machinery replacements which may be found necessary.

In our accounting system no separation of the charges as between physical wear and obsolescence is made. We have provided for depreciation, or perhaps more appropriately termed "replacement," reserves to cover buildings and machinery. Since the Government does not permit deductions for obsolescence, except in the case of actual replacements, when an adjustment is allowed to take care of depreciation not already accounted for, we have not considered it feasible to carry "obsolescence" on our books as a separate item.

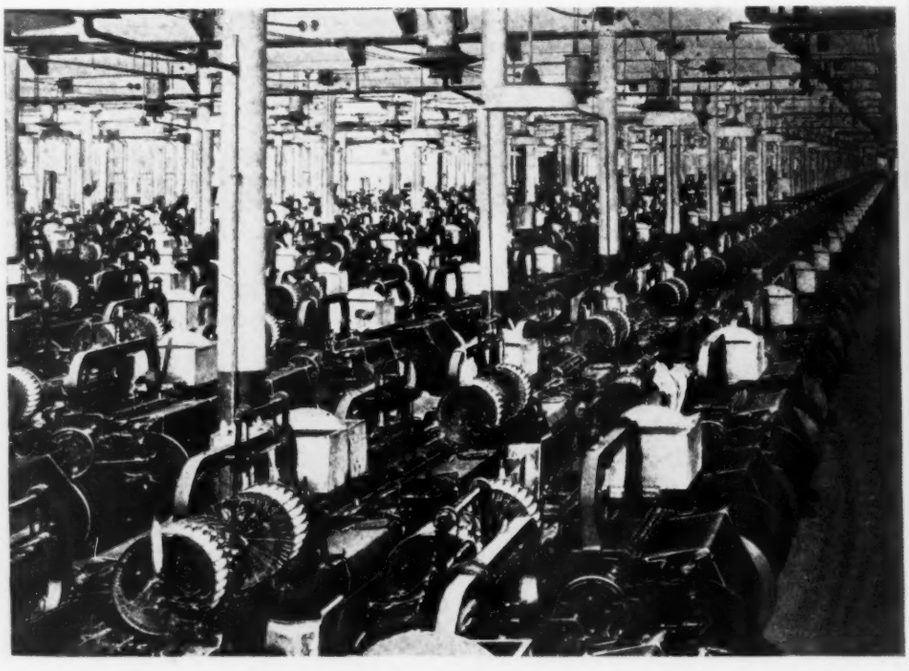
### Why Replacement Is Desirable

In practically every case the replacement of machinery is found to be desirable for one or more of the following reasons:

1. Improved machinery will result in substantial reduction of manufacturing costs;

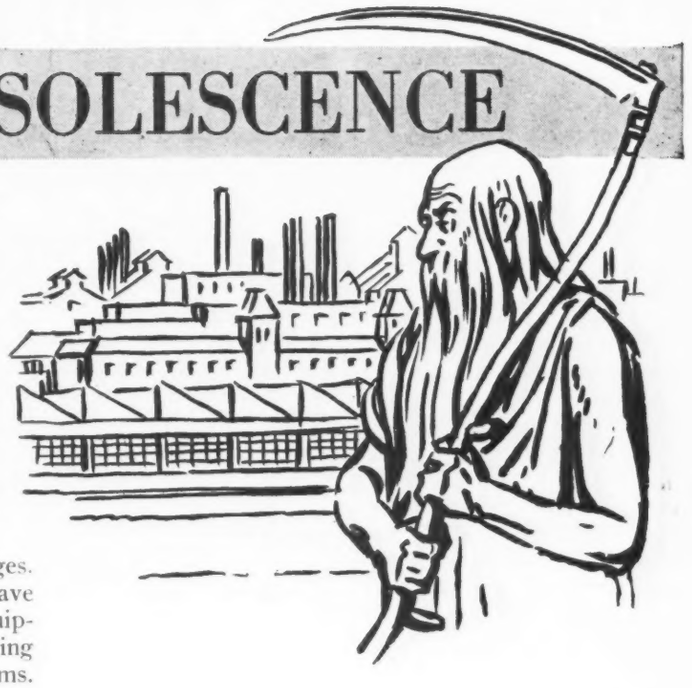
2. Replacement of existing equipment will enable the plant to produce goods of higher quality;

3. Replacement of old machinery is desirable be-



*Panorama of the weave room at*

# WEAR AND OBSOLESCENCE



cause of mechanical difficulties involved in its continued operation.

In our own particular program of machinery replacement during the last five years, the factor of higher quality production has been of primary consideration.

The successful introduction and operation of efficiency labor systems depends to a large extent upon the condition of plant equipment. It is evident that a modern machinery lay-out, including wider-gage spinning, high-speed warping, automatic looms, and improved dyeing equipment, can be operated with less attention from the worker. Consequently he is able to run more machines and earn higher wages.

Within the last few years in our denim mills, we have completely replaced the major part of our old loom equipment, scrapping more than 3,000 looms, and installing in their place 3,000 new, up-to-date, automatic looms. The work of each weaver was rearranged so that he now operates an average of 18 looms, instead of 14 looms as previously, while the unskilled task of cleaning, oiling, and sweeping around the looms is now performed by additional unskilled labor. This separation of the skilled from the unskilled work has enabled our weavers to increase their earnings more than 20%, by actual computation from our payrolls.

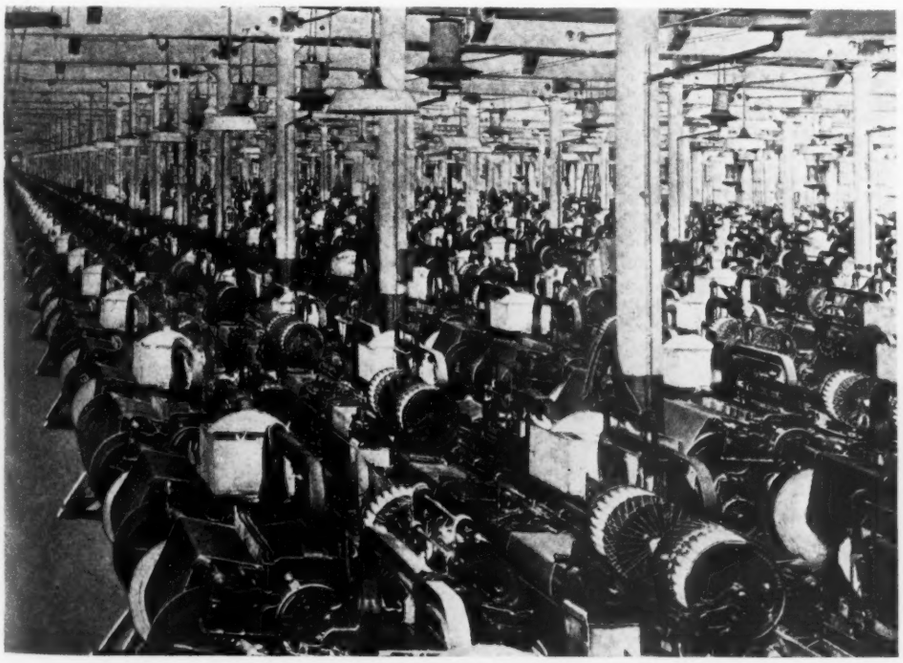
### Conference of Executives

We have not attempted to set down any yardstick for determining the exact time when machinery replacements are necessary. The desirability of replacing old equipment usually is first detected in analyses of cost figures and operating statements. When the decisions to replace old machinery are considered, the various factors entering into the consideration are discussed in a conference of officials and operating executives of the mills.

Our experience in dealing with the subject of machinery replacement during the last few years has brought out the fact that the modernization of one department, or of one process within a department, frequently requires the installation of new machinery in the previous or subsequent process, or in an adjacent department. In a general modernization program, we have found it advisable to take up the various departments one at a time—so that the entire program has been one of gradual development.

In the case of our new power plant, which was placed in operation more than a year ago, it was decided to employ an engineering firm to study the problem and make an estimate of the economies which would result by the installation of modern boilers and steam turbines. The result of the engineer's investigation, together with our own experience, convinced us that an expenditure for the new power plant would be economically justified.

Whereas, in the case of the power plant, economy of operation was the primary factor for consideration, the replacement of carding, spinning, and weaving equipment was found to be necessary in order to maintain our quality of product. We realized that our denims must possess quality in order to retain their dominant position in the markets, and the intelligent replacement of worn and obsolete equipment was the most essential step toward insuring quality production.



*From "World Leadership in Denims" published by Proximity Mfg. Co.*

*White Oak Mills, housing 3,000 looms*

# Progressive Attitude Toward Costs and Cooperation Shown by S.T.A.

THAT greater heights of achievement have been reached by the Southern Textile Association, reflecting much credit upon those who have guided the organization's destinies through the 22 years of its existence, was clearly evidenced by developments in the annual meeting at the Ocean-Forest Hotel, Myrtle Beach, S. C., June 27-28. Every detail of the program, from an instructive address on manufacturing costs to the intelligent discussion of effective cooperation, was typical of the constructive attitude which has contributed in large measure to the success of the association.

One illustration of the progressive spirit which animates the organization was the unanimous adoption of a resolution expressing approval of the recent movement sponsored by The Cotton-Textile Institute for the general acceptance of the 55-50 maximum working week in the industry, which L. L. Brown, Malvern, Ark., president of the association characterized as "a step in the right direction." This resolution was presented by James A. Chapman, Jr., Inman, S. C., past-president of the Southern Textile Association.

Further assurance of even greater accomplishments by the association in the future was seen in the election of officers Saturday morning. J. O. Corn, superintendent, Pacific Mills, Columbus, S. C., was elected president for the 1930-31 term to succeeded Mr. Brown who was awarded a medal for his meritorious service at the helm of the organization during the last year. President Corn has devoted his valuable efforts to the various activities of the association for several years, and has served as chairman of the carders' division, chairman of the board of governors and during the past year as vice-president.

In addition to the election of J. O. Corn as president of the association, the following officers were named: T. W. Mullen, Rosemary, N. C., vice-president Marshall Dilling, executive secretary; and D. Singleton Cook, Opelika, Ala., chairman of the board of governors.

New members of the board of governors were elected, as follows: J. A. McFalls, Gastonia, N. C.; T. M. McNeill, Union, S. C.; L. P. Duncan, Inman, S. C.; D. D. Towers, Rome, Ga.; and N. B. Hill, Kingston, N. C., the last named to fill the unexpired term of the late O. G. Murphy, Shawmut, Ala.

Marshall Dilling, of Gastonia, was elected president of The Arkwrights, Inc., and Carl R. Harris was named vice-president.

## Address by Pres. Brown

FOLLOWING address of welcome at opening session by Col. H. B. Springs, of Myrtle Beach, Mr. Brown delivered the annual address of the president. He compared the present status of the industry with conditions one year ago and endorsed the 55-50 maximum working week as an effective means of bringing stability to the cotton textile industry. He emphasized the importance of adequate research in textiles and urged members of the association to exert their influence toward improving the quality of cotton grown in their own localities. He said in part:

The blackest hours of the night come just before the dawn, and I believe that I can see a few faint rays:—the formation of the United States Institute for Textile Research, the adaptation of the 55-50 hours of work, organized curtailment to meet the existing conditions, employes realizing the seriousness of the situation, and better cotton seed being put in the ground.

The 55-50 hour working schedule is a step in the right direction inasmuch as it is better than operating 115 to 125 hours per week. Mr. Arthur Dixon, president of the American Cotton Manufacturers Association, in his address at Pinehurst on May 6, expressed the hope and belief that the Institute's plan for a 55-50 hour working schedule in the mills would soon be adopted by practically all manufacturers. I do not think that Mr. Dixon meant just exactly that—that all mills would adopt the 55-50 hour schedule, but that all mills that are now running day and night would adopt the 55-50 hour schedule.

Abraham Lincoln wasn't far wrong when he said that no country could survive half free and half slave. Neither can an industry prosper with half on a 55-50 schedule, and other half on 55 schedule. It is not for me to say which schedule is best, for, frankly, I do not know; but this I do know—we are coming to one or the other.

Our employes came from only one place (unless it's our neighbors' mill) and that place was the farm. As a tenant on the farm he was assured of food, clothing and shelter for the next twelve months. But what assurance has he today of these things when he comes to the mill? Full time employment means loyalty, happines and development. Unemployment means distrust, sorrow, degradation, and radicalism. It is a serious matter to discharge a person but, I tell you, gentlemen, the employment of a person is still a more serious matter. I believe the time is coming when we employ a person that he or she may expect at least 80% or 90% employment over a given period. We insure our lives against death, why not against un-employment?

Next to employment I consider cotton of major importance. It matters not how modern your equipment may be, and you may have opening machinery a block long, but if you put dog-tail and short staple in one end, you are not going to take out good middling one-inch staple at the other.

Until each individual bale of cotton is bought on its own merits, there can't be a great improvement in the character of the crop. I believe that the cooperative associations will be a great help to the farmer for this one reason.

## Cost Systems by S. Munroe

SATISFACTORY cost systems, according to Sydney P. Munroe, manager of the cost section, Cotton-Textile Institute, New York, N. Y., who was the next speaker at the Friday morning session, serve two functions and are of extreme importance to the operating executive. In the first place, it was pointed out, accurate methods develop the normal cost of each separate style or pattern of goods or count of yarn which the mill is selling; and, secondly, the records and reports regarding payrolls, productions, waste and many other cost factors which are

maintained as part of the system should be so designed that they will provide valuable information for the superintendents and overseers. He said:

A satisfactory cost system serves two functions. First, it should develop the normal cost of each separate style or pattern of goods or count of yarn which the mill sells, and it should be so devised as to enable the management to predict with reasonable accuracy, the cost in its mill of any style or yarn not previously made. Second, the records and reports regarding payrolls, productions, waste, etc., which are kept for the purpose of maintaining the cost system should be so designed that they provide valuable information for the operating executives, that is the superintendents and overseers. Both of these main functions of the cost system affect the operating executive to a marked degree.

In saying that the first function—and to my mind the most important function—of a satisfactory cost system is the development of normal costs on each yarn and fabric made, and of pre-determined costs on those styles or yarns proposed, I do not mean the development of a standard cost or a cost which is to be aimed at and perhaps never achieved. By normal cost we mean the cost which your mill will actually attain under normal conditions, with unusual or special circumstances eliminated. We mean a cost which will reflect truly and equitably the logical differences in manufacturing procedure which will be encountered in manufacturing any two or more fabrics or yarns. The intelligent use, by a skilled management, of such data in connection with its selling policies will have a very direct effect upon the profits of the mill, even in such difficult times as we now face.

Such pre-determined normal cost figures should reflect every important distinction in processing different rovings, yarns or fabrics in the mill, they should include all overhead charges, they should allow for waste losses and waste credits, and should reflect certain features of management policy. Among the latter, we of the Institute believe that these costs should include ample depreciation based not on the cost of the plant, but on what it will cost to replace it and that they should also include an allowance for a reasonable return on the capital which the mill has invested in its plant and in normal inventories. We also believe that these figures should be so designed as to take account of the normal curtailment which the mill is likely to experience in the future as indicated by its past records over a lengthy period of time. It is also our belief that for quotation purposes the cotton costs should represent replacement value.

*J. O. Corn, elected president, S.T.A.*

As several of the items mentioned do not in any way correspond to records on the general books, we do not advocate that the cost system should be tied in with the bookkeeping records. A quarterly check-up or reconciliation of these normal cost figures against actual expenditures is desirable, and, as often as indicated by the results of this check-up the original cost figures should be reworked.

There is another type of cost system which was in vogue some 20 or 25 years ago, developed principally by agencies whose experience had been chiefly in other industries. This other type of cost system proposes to re-figure periodically—in some cases once a week, in other cases once a month—a so-called actual cost for each product of the mill. Any one thoroughly familiar with all the details involved in cotton manufacturing must realize that, in a mill of even moderate variety, a computation of the cost of each product of the mill for a given specified period must involve a tremendous amount of detail if it is to be accurate. The only way to avoid such an immense degree of complication is to employ short cut methods which will result in misleading the mill as to the cost relations between different fabrics. This type of cost system is generally tied in with the bookeeping system, which again adds to the complication of the method and impairs the flexibility of the system.

In conclusion I would say that the increasing interest and discrimination shown by the mills regarding the importance of sound cost methods is very gratifying. The Institute is anxious to cooperate in every reasonable way to secure the wider recognition of such principles.

## Study of the Cotton Fiber

"STUDIES in the Growth and Behavior of Cotton Fibers" was the subject of an illustrated talk by Mrs. Wanda K. Farr, associate cotton technologist, Division of Cotton Marketing, U. S. Department of Agriculture, Washington, D. C., which was a feature of the opening session. Microscopic studies of the structure and development of individual cotton fibers were described in a most interesting way, accompanies by lantern slides, and it was clearly indicated that there are further possibilities for more exact conception of "character" in cotton and the various fiber factors determining the "spinning qualities" of the staple. Her address was along lines similar to those taken up at the meeting of Committee D-13, American Society for Testing Materials, which was held in Charlotte, N. C., March 13-14, and described under the title of "Progress in Cotton Fiber Study" in TEXTILE WORLD, April 12, 1930.

A brief abstract follows:

A relatively large amount of information concerning the microscopic and ultramicroscopic nature of the cotton fiber has been accumulated by investigations in various parts of the world. The size of the individual fibers has placed the burden of proof with respect to their structural, physical and chemical properties almost entirely within the range of microscopic observation.

Fiber diameter is observed to possess a high degree of variation. In addition to the wide range of differences existing between the fibers in general cross-sectional proportions, we find a gradual diminution in diameter from base to tip of the same fiber as well as a large number of constrictions, bulges, crimpings, etc. Cross sections of the mature fibers show the presence of stratifications in the thick walls.

Studies with polarized light have shown that these concentric layers are made up of still smaller units called "fibrillae." They are elongated spiral structures, not unlike the fiber itself in general form and arranged with their main axis parallel to the long axis of the fiber.

The microscopic findings concerning shape, concentric layering, chemical make up of the fiber layers, etc. are alone inadequate to promote our thorough understanding of the properties determining the "character" of the fiber. Recent investigations have shown, however, that when a beam of X-rays is passed through a fiber or bundle of parallel fibers and allowed to fall upon a photographic film beyond, there is produced upon the film an image which

makes it possible for us to visualize the molecular structure of the cellulose layers. The results obtained by this new method, enables us to answer more satisfactorily than heretofore many of the puzzling questions concerning the behavior and quality of the fibers.

## Social Phases of Convention

FRIDAY afternoon was given over to the golf tournament, a handicap affair of 18 holes medal play, which was under the direction of Paul F. Haddock of Charlotte, N. C. In addition to the main tournament at the Ocean Forest Country Club, there was a putting contest for ladies, followed by an informal tea, and other forms of recreation for members and visitors not participating in golf. Prizes were awarded to the winners at the annual banquet Friday evening.

J. M. Alexander, Gastonia, N. C., carried away golfing honors with a low gross score of 79 and was suitably awarded with a handsome loving cup. W. B. Uhler, of Borne Scrymser Co., won the prize for second low gross. Sam Rakestraw, of Seydel-Woolley Co., Atlanta, Ga., received the award for first low net, while R. R. Dorsett, of Rohm & Haas Co., Charlotte, N. C., had second low net. Mrs. Junius Smith and Mrs. I. E. Wynne, both of Charlotte, were winners of the first and second prizes respectively in the ladies' putting contest.

There were no serious addresses on the banquet program but the real entertainment feature was a surprising "radio act" by Amos 'n Andy (not in person), a skit written by D. H. Hill, Jr., associate editor, *Southern Textile Bulletin*, Charlotte, N. C. The characters were portrayed by two entertainers from Charlotte who were outside the banquet hall and presented their humorous dialogue through a microphone and amplifier hook-up. The thread of the story, as spun by Mr. Hill, developed that the Fresh Air Taxi Cab Co., of America, Inc., had been traded in as the first installment on a cotton mill down in Georgia. Andy explained to Amos the advantages of such a deal and pictured the opportunities existing for them as cotton mill owners. Amos was in doubt on the subject of "costs," but Andy explained the term by saying that "cost is a figure which mill owners guess at and sell under."

The final session of the convention, which was held Saturday morning, was featured by a moving picture, "The Romance of Rayon", showing the entire train of processes used in the manufacture of rayon by the viscose method. H. W. Rose, southern sales manager, American Viscose Co., Charlotte, N. C., pointed out some of the interesting features included in the picture and described in more detail many of the processes involved.

## Government Services

ILLUSTRATIONS of cooperation between various bureaus of the U. S. Department of Commerce were given by Marvin L. Shirley, district manager, Bureau of Foreign and Domestic Commerce, Charlotte, N. C., in an address entitled, "Cooperation on a Practical Basis." He described some of the departmental activities relating to the textile industry as follows:

Taking the various phases of the textile industry in their natural sequence, the Bureau of the Census first enters this field of practical cooperation. Each month the Census Bureau issues a report on the consumption of raw cotton, domestic and imported, by the spinning mills of the United States, these figures being sub-divided by States so that a manufacturer in any one State may judge his own position with his own State. Coupled with this report of cotton consumption is the monthly report of spindle activity and number of spindle hours for the United States, each cotton spinning State, and further sub-divided by counties in the cotton spinning States.

The next census report after cotton consumption and spindle activity report is the Census of Manufactures, taken every two years, and covering all of the major industries of the country. The census for 1929 has just been taken and the reports will become available just as soon as they can be compiled after the completed questionnaires are received.

This Census of Manufactures for the textile industry will contain a complete picture of what was manufactured during 1929, how many plants were in operation, how many operatives were engaged, and a host of other information of value to the manufacturer.

The next steps taken by the Department of Commerce in practical cooperation with the textile industry are taken by the Bureau of Foreign and Domestic Commerce. The Bureau of the Census compiles information on cotton consumption, spindle activity and textile manufacturing. The Bureau of Foreign and Domestic Commerce studies the distribution of textile manufactures, and gives the benefit of those studies to the industry.

Governmental bureaus use the printed word to broadcast the information they have assembled. Eleven bureaus have published material of value to the industry, and in the spirit of cooperation the Textile Division has compiled a list of these publications, together with a description of each of these bureaus' activities, under the heading "Government Publications Relating to Textiles."

There is still another Bureau of the Department of Commerce engaged in active and practical cooperation with the textile industry, the Bureau of Standards.

The functions of the Bureau are the development, construction, custody, and maintenance of reference and working standards and their intercomparison, improvement, and application in science, engineering, industry, and commerce.

## Committee Reports

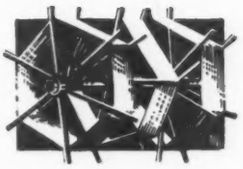
REPORTS of divisional chairmen and the secretary's annual report, followed in the regular business session. Carl R. Harris, general superintendent, Aragon - Baldwin Cotton Mills, Chester, S. C., past president of the association, read a letter of resignation from F. Gordon Cobb, vice-president and general manager, The Lancaster (S. C.) Cotton Mills, who has served as executive secretary and in other capacities for many years.

The association unanimously adopted the resolution offered by James A. Chapman, Jr., Inman, S. C., approving the movement looking toward the establishment of a uniform maximum working week of 55 hours day run and 50 hours night run, with all overtime and noon hour running abolished, throughout the industry.

Marshall Dilling, chairman of the research committee, The Arkwrights, Inc., presented medals to A. R. Marley, Cooleemee, N. C., and S. H. Sherman, Lenoir, N. C., signifying the satisfactory completion of Arkwright tests with the approval of the research committee.

The secretary-treasurer's annual report, submitted by Mr. Taylor, revealed that membership in the association has increased approximately 19% over the figures for 1929. It was stated that The Arkwrights, Inc., as well as the association, are planning to share in the proceeds from the fund for textile research held by The Textile Foundation. The organization of a hosiery division of the association, it was stated, will be postponed until later—probably in the fall.

# Lower Hosiery Wage Scale Foreshadowed by Events in Philadelphia



THERE have been three developments in the full-fashioned hosiery manufacturing field which are of vital importance not only to manufacturers in this group but for numerous reasons to the entire textile industry. The first of these—the labor development — has been conspicuous in the H. C. Aberle Co. plant in Philadelphia, where a long and bitter strike on the part of the employes was seemingly terminated by the findings of the Squires Committee.

Aberle executives started their plant after the long strike on basis of Squires recommendations and presumably found that they were unable to operate profitably. It was soon announced that they could not go on under that basis and the management invited workers to meet and endeavor to arrive at a wage basis under which the Aberle concern could merchandise its goods profitably. The Aberle management has made no statement recently on the question, but it is reported that the firm has made an arrangement with a portion of the former personnel whereby the workers agreed to conditions other than those recommended by Squires Committee. It is reported that leggers in Aberle plant are now operating four machines with four helpers, unusual heretofore in the full-fashioned trade.

Evidently, believing that this arrangement was worth a trial, the Aberle firm has resumed operation in part of the equipment and such employés as are willing to accept the management's terms are back at work. Details of the new plan have not been procurable, but the consensus of opinion in the trade is that the Squires Committee findings, so far as the Aberle plant is concerned, have failed to settle the matter of wages. Although no figures on the new scale are available, it can safely be said that workers have accepted terms less favorable to them than were contained in Squires recommendations.

### Manufacturers Club Meeting

Next development of importance to full-fashioned knitters and manufacturers was the meeting of the Full-Fashioned Hosiery Manufacturers' Association of America, a representative group of which met at Union League, Philadelphia, June 20, to consider the lower wage scale that they would present to the Full-Fashioned Hosiery Workers at the annual meeting of the latter organization, beginning June 23.

The manufacturers' meeting was in executive session, the press being excluded. No statement was issued following the meeting; it was reported that the manufacturers, of which there are between 40 and 50 in this group, agreed to ask workers to accept a reduction averaging between 15% and 25%.

S. E. Summerfield, president of Gotham Silk Hosiery Co. and head of the manufacturers group, confined himself to the statement that "the meeting was held to discuss a new wage agreement to go into effect on Sept. 1, 1930." It is necessary that prompt action be taken as manufacturers desiring to withdraw from the agreement with the union must give 60 days advance notice and if the new pact is to become effective Sept 1, this would mean they would have to arrive at a decision quickly.

Following the meeting of the manufacturers who have this wage agreement with the union, the American Federation of Full-Fashioned Hosiery Workers met in its 18th annual convention at Knitters Hall, Philadelphia, June 23. Many subjects came up for discussion including unemployment insurance, but the wage question was the outstanding matter to which attention was given by workers.

### Workers Federation Session

All these developments seem to point in one direction and that is toward definite reduction in the wage scales of full-fashioned hosiery workers. Indications are the full-fashioned union realizes this trend and will to a certain degree accede to it. Yet in convention it was seen that the union is taking steps to counteract this move. The unionists for the first time have included women in their list of delegates; 15 women were in attendance at the Philadelphia meeting. All workers in knitting mills are to be included in the agreement, whereas heretofore only knitters have been included, and an unemployment insurance plan is being formulated by the union to enlarge its membership.

At one session Dr. Geo. W. Taylor, who succeeded Dr. Fineschriber as arbiter in the Aberle negotiations, told the convention that manufacturers themselves are largely to blame for present unsatisfactory conditions in the trade, which many are now seeking to correct by wage scale reductions. He pointed out that in the last twelve months there has been an increase of 25% in full-fashioned equipment and in addition large numbers of mills had adopted the night shift, making December the biggest production month in history. Mills installed additional footers and then were compelled to operate leggers two shifts to balance.

Neutral opinion is that wages do not represent the sole angle to the condition in which this trade finds itself, and many are inclined to agree with Dr. Taylor when he places blame on manufacturers themselves. Yet while agreeing with him, many believe that full-fashioned workers could equitably accept lower rates and still earn approximately the same as they have in the past.

It is possible that reductions in wages alone will not place the full-fashioned trade back in the position it occupied when demand was larger than supply, but manufacturers who are members of wage agreements with the union, evidently feel that a wage reduction of approximately 18% will be imperative. Such an example would lead to cuts by manufacturers outside this group, aside from the half dozen full-fashioned plants in various sections where strikes are now in progress.

*Reichstagsgebaude, Berlin, where reception to the delegates to conference was held*

# *Gleanings From*
# World Power Conference at Berlin

OVER 400 papers on the generation, distribution, and utilization of power, and related subjects, were presented at the World Power Conference, held June 16 to June 25 in Berlin, Germany. The attendance at this remarkable engineering gathering was reported to be over 4,000 and representatives from 36 nations were present. The following abstracts are from papers of particular interest to American textile men.

## Interchange of Power by Utility Systems and Industrial Plants

***By B. F. Wood***

**"A great field of opportunity is here presented to bring about a massing of resources of power production."**

THE advent of high pressure has made it possible for the plant to get some or all of its power requirements from the steam that is subsequently used for process or other heating operations. There is, beyond doubt, a very much larger number of industrial plants in operation at less than 300 lb. pressure supplying the multiplicity of power and heating requirements of industrial enterprises. An industrial plant often requires process steam as well as electric power and frequently some form of waste heat is available. Steam and electric power requirements of an industrial plant do not usually coincide, either hourly, daily, or seasonally; and these requirements do not, except in a general way, synchronize with the liberation of waste heat or the possible production of surplus electric power. A great field of opportunity is here presented for cooperation between utility and industrial companies to bring about a meeting of resources of power production.

To secure the maximum degree of reliability and economy of power service and the fullest utilization of any waste heat or usable surplus power, some arrangement must be made to bring about a massing of the industrial and utility companies' resources of power production. This is hardly possible if the utility company limits its activity to the furnishing of electric service, particularly if the utility company adheres rigidly to an established schedule of rates. A discussion between utility and industrial people frequently starts with a mutual distrust of each other's cost statements, which leads to dickering and may end in the industrial company determining to be wholly independent in its entire power service. Recently, a broader and more liberal view has prevailed and progress is being made in bringing about an agreement to the mutual advantage of both interests. To some extent, this change of attitude may be due to a better understanding of unity of interests.

Among the means that may be employed to secure the advantages of massed resources of power production, with respect to utility and industrial plants, may be mentioned:

1. The interconnection of the electric circuits, securing advantages of protection of service, diversity of load conditions, economy of operation, etc.

2. The establishment of jointly owned plants and facilities, supplying to the industrial plant electric, steam, or other power service, utilizing the utility system as the

reservoir from which to draw or into which any and all surplus electric power may be poured.

3. The building and operation of plants and facilities by a utility company near the industrial plant, supplying such power service as required by the industrial plant, making up any deficiency from, or taking any surplus electric power on, the utility company's power system.

In the first case we have the possibilities of all the advantages of interchange of electric power presented by interconnection between different utility systems with the further advantage, usually, of a different character and greater degree of diversity of load.

It is, however, the last two cases that present the greatest possibility for mutually advantageous arrangement between industrial and utility plants and that make the engineering studies to secure maximum economic results most interesting.

In the establishment of jointly owned plants or the allocation of a portion of the plant facilities to the service of the industrial plant, the total investment may be minimized. Many plant facilities such as real estate, railroad sidings, coal and ash handling equipment, etc., need not be duplicated. Spare equipment may serve as spare for both the industrial and utility. The organization for operation and maintenance may be spread over both operations.

# American Progress in Coal Firing of Boiler Furnaces

*By H. W. Brooks*

**"INCREASING dependability and durability of wearing parts, simplicity of renewal, and decreased power consumption have been ideals sought in recent design of coal pulverizers."**

ENGINEERS of other nations familiar with American pulverized-fuel literature of the past twelve years will no doubt be astonished at the relatively small proportion of the total American boiler fuel so fired. Rapid as have been the advances made in powdered-coal technology in the United States, the new method has today by no means swept the field. A fair estimate of the annual tonnage of total coal burned under American boilers will approximate as follows:

| | |
|---|---|
| Hand Firing | 275,000,000 tons |
| Underfeed Stokers | 100,000,000 tons |
| Chain-Grate Stokers | 40,000,000 tons |
| Pulverized Coal | 25,000,000 tons |
| Total | 430,000,000 tons |

Even during the past seven years, since powdered coal has been universally recognized not only as to technical feasibility but also as to operating practicability, United States Government statistics have shown that stokers continue to hold their own in serving about 60% of all water-tube boilers manufactured. There is no reason at present apparent why this ratio should not continue.

With all types of firing equipment, increased availability, dependability, or the ability to produce when needed is today the principal objective of American manufacturers. Complete steam-generating units, including boiler, superheater, economizer, preheater, water conditioners, furnace, and firing equipment are repeatedly showing availability records from 90 to 93%—thus materially decreasing fired charges on unnecessary reserve equipment.

In pulverized fuel, the trends of the past two years which appear most clearly marked are:

1. The growing popularity of unit pulverizers even on applications of largest fuel requirements.
2. Increasing realization of the essentialness of fine grinding for best results.
3. Decreasing equipment and installation costs per unit output and consequent reduction of fixed charges.
4. Horizontal turbulent burners almost universally recommended for bituminous coal.
5. Development of cheaper and more efficient methods of separation of ash from chimney gases.
6. Water-cooled walls rapidly becoming standard in boiler practice even in the medium sizes.
7. Air preheated by waste heat, for drying raw coal in feeders and pulverizers and for increasing tempera-

*Kroll Opera House, Berlin, where sessions of World Power Conference were held*

tures within the furnace, is generally being specified.

8. Automatic controls are becoming less costly and more dependable.

9. Slagging-type furnace for low fusion ash coals are attaining rapid popularity.

10. Portable truck mounting of pulverizers has been employed with success to reduce initial costs where operating cycles permit.

Three substantially new pulverizers have been introduced to the market and one new complete system incorporating certain features of both the unit and central systems. Increasing dependability and durability of wearing parts, simplicity of renewal, and decreased power consumption have been the ideals sought in mill design.

In the stoker field corresponding advances have been recorded. Among the most noteworthy of these may be mentioned:

1. Increase in stoker sizes.

2. Increase in burning rates per square foot of burning area per hour.

3. Increase of stoker length.

4. The use of preheated combustion air of higher temperature.

5. The rapidly growing use of water-cooled walls and arches.

6. The better coordination and proportioning of stoker, boiler, economizer, and preheater with respect to each other.

7. Bettered zone control both for coal and air distribution.

8. The increasing use of clinker grinders with larger and deeper clinker pits, particularly on the larger stokers.

9. Increasing use of both rear- and front-end mixing arches to secure more complete burning out of the combustion gases.

10. Wider realization of the economic usefulness under American conditions of the small stoker.

## Industrial Application of Pulverized Fuel

*By W. L. Martwick*

**"BEST assurance of the economic value of pulverized fuel equipment lies in a general confidence which has been expressed by the numerous industrial firms who, having once installed such equipment, have not hesitated to extend its application."**

PULVERIZED fuel has many attributes to recommend it as a fuel in the industrial plant. Among these are the ease with which it may be burned, the simplicity with which its intensity and rate of combustion may be controlled, the low excess air and the consequent high thermal efficiency, the low losses when the firing equipment is banked, and the wide range of coals which may be handled with high efficiency and without change in the design of apparatus. The prospective user first assures himself that the cost of grinding the fuel and of burning it is not too great to outweigh the advantages mentioned above. Perhaps the best assurance of its economic value lies in a general confidence which has been expressed by the numerous industrial firms who, having once installed pulverized-fuel equipment, have not hesitated to extend its application.

There are two general schemes for preparation and transport of pulverized coal. The more complicated system is called the central or storage system, which, as its name implies, involves the preparation and drying of the coal, often in a separate building, and its subsequent transport to bunkers in the boiler room, from which it is fed by special apparatus to the burners.

The unit system is less complicated than the storage system since it consists simply of a mill from which the coal is discharged directly to the burners. Seldom, if ever, is it necessary to install separate dryers, as the grinding and transport of the coal are the only factors which make it advisable to remove moisture. Unit mills usually employ air drying within the mill, from which the drying air passes directly to the furnace, where it is used to burn the coal.

The prospective user of a unit system is advised to use the beater type for small installations where the coal is not unusually abrasive. For the large units other types of mills may be used to suit the individual needs of the job.

## Underfeed Stokers

*By F. H. Daniels*

**"TENDENCY is toward larger and larger steam-generating units, operated at higher and higher ratings. Consequently, mechanical stokers have been increased rapidly in size, and particularly in length."**

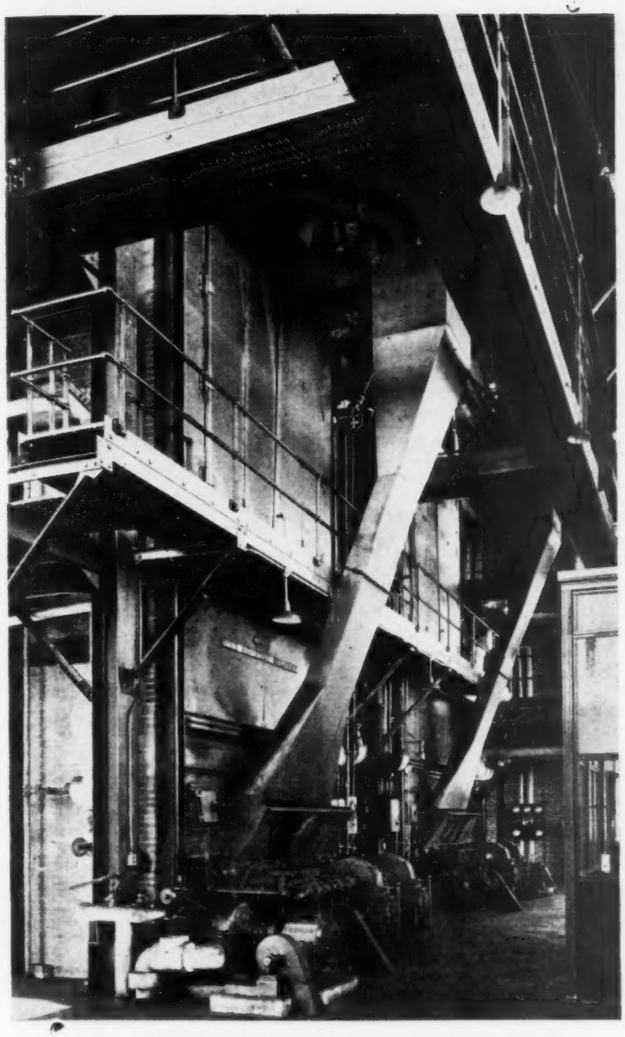
UNDERFEED stokers are used primarily for burning high-grade bituminous coal having a rather low ash content of high fusing temperature. Their use, when the question of pulverized fuel or stokers is decided in favor of stokers, is almost universal in the eastern portion of the United States, where the high-grade bituminous coals are used. The question of their use in the midwestern states, where fuel is of a lower grade, high in ash and moisture, and with ash having a low fusing point, is debatable.

The tendency of the times is undoubtedly toward larger and larger steam-generating units. These units are being operated at higher and higher ratings. Consequently mechanical stokers have been increased rapidly in size and particularly in length. In the multiple-retort type, stokers are now built to fill up the entire space available under the boiler. This big increase in size has necessitated many changes and refinements in stoker design.

## Traveling-Grate Stoker

*By H. D. Savage*

TODAY it may be said that the traveling-grate and the chain-grate stokers, either with or without forced draft, will satisfactorily fulfill a wide range of applications from the low-capacity, low-cost installations for burning a very cheap coal, to a modern up-to-date and highly-efficient central station in free-burning coal districts. This type of stoker is self-cleaning; it requires little power to drive and low forced-draft pressure. The maintenance cost compares favorably with any other type of stoker. With forced draft, when burning low-grade,



*A modern textile mill power plant*

high-ash, free-burning bituminous coals or anthracite, coke breeze, lignite, and sub-bituminous, it has no equal.

## Steam Turbines for Industrial Plants

### *By Prof. A. G. Christie*

**"IN general, every industrial plant is a complete problem in itself, and each turbine should be designed to meet the demands of that individual plant in the most economical manner, although this results in increased first cost."**

STEAM turbines are in competition with reciprocating engines in sizes up to 500 kw. Such competition with reciprocating engines of different styles with varying steam economy led turbine builders to develop several types of turbines of varying efficiency and varying cost. It is now possible to purchase either turbines or engines of approximately the same steam economy for given operating conditions at about the same price. The efficiency of the average small turbine can be increased over present standards by the development of carefully designed multi-stage units, operating at high speeds with mechanical reduction gearing. The efficiency of such gearing ranges from 96 to 99%. Gear teeth have been developed so that wear is small on these parts.

Certain operating factors favor the economic use of turbines in many industrial plants. The freedom of the bled or exhaust steam from contamination with cylinder oil permits its use for industrial purposes or, when condensed, for boiler feed. Turbines require small floor space and are of moderate height, thus reducing engine-room volume. Erection costs are low. Attendance and maintenance are less than with reciprocating engines. Any degree of superheat can be used.

Small turbines have been found preferable to either reciprocating engines or electric motors for use in dirty or damp places and in plants where inflammable mixtures are present and no sparks can be allowed.

The type of small turbine to be selected for a given industrial service depends upon the demand it must supply, its efficiency, its use factor, and its first cost. The wide application of turbines makes it impossible briefly to specify considerations affecting selection of type.

Two types of bleeder turbines are used in American industrial plants. In one type a constant pressure is automatically maintained in the bleeder pipe to the process by a control valve, while in the second type the pressure in the bleeder connection fluctuates with the load. The section of the turbine to the bleeder point in the first type consists essentially of a high-pressure turbine operating under constant pressure conditions; the remainder beyond the automatic pressure-control valve serves as a low-pressure turbine with varying inlet pressure. Turbines may be bled at several points to provide different steam pressures as needed.

Various devices are used in the first type to maintain the constant pressure at the bleeder point. When the bleeder pressure is low, grid valves are frequently built into the turbine diaphragm. If the steam must be bled at high pressures, some type of automatic balanced valve placed outside the casing may be used. In still other cases nozzle control on the low-pressure section, either in the form of separately controlled valves or of needle valves in the individual nozzles, provides a more efficient use of the steam in the low-pressure stages.

The economic selection of the most suitable bleeder turbine is a matter involving much study. In general, every industrial plant is a complete problem in itself, and each turbine should be designed to meet the demands of that individual plant in the most economical manner. This results in increased first cost on account of the engineering studies and shop changes involved. On the other hand, the fuel savings or increased power output resulting may quickly repay this added cost.

## Automatic Control of Boiler Plants

### *By E. G. Bailey*

**"AUTOMATIC combustion control is usually installed in a boiler plant in order to effect a saving in fuel by more efficient operation. This saving alone has, in numerous cases, more than paid for the initial cost of the control during the first few months of service."**

AUTOMATIC combustion control is usually installed in a boiler plant in order to effect a saving in fuel by more efficient operation. This saving alone has, in numerous cases, more than paid for the initial cost of the

control during the first few months of service. In addition to the fuel saving, however, there is usually a considerable saving in the cost of labor, as the number of boiler-room employes may be reduced.

The increase in efficiency resulting from the installation of automatic control is, in most cases, also accompanied by increased capacity, thereby postponing or eliminating the necessity for enlarging the power plant. This reduction in overhead should be credited to the control equipment. Automatic control has made it possible to operate boilers economically and safely over long periods of time, reducing the outage and improving the general character of the service.

It is desirable to hold the steam pressure fairly close to the maximum or standard in order to maintain maximum economy in the operation of prime movers, as there is a direct relation between steam pressure and steam economy. Likewise, the success of many industrial processes depends upon the maintenance of certain pressures and temperatures, as they exert a pronounced influence upon the finished products.

The primary function of any combustion-control system is to supply fuel and air to the boilers in proportion to the demand for steam. In the better types of controls this is accomplished by changing the rate of supply of both fuel and air simultaneously in accordance with the steam demand as indicated by changes in the steam pressure at some suitable point in the system.

In designing and applying automatic combustion control, consideration must be given to the time lag in the combustion and heat-transfer process. If a variation of 2 lb. in steam pressure actuates the control to change the quantity of fuel and air being supplied to the boiler furnace, a further change in pressure may occur before the increased fuel and air supply will have had time to bring the steam pressure back to normal. It is therefore desirable to design the control equipment so that changes in the fuel and air supply will be made in accordance with the rate of pressure change rather than by the deviation of pressure from standard.

In order to overcome pressure variations due to a rapidly fluctuating load and to avoid the effect of time lag, certain types of combustion control have been designed not only to make changes in the fuel and air supply proportional to the variations in pressure from standard and the rate at which the pressure is changing, but as soon as the control has succeeded in stopping the pressure change from normal and has started it toward standard, it changes the ratio of fuel and air supply in the opposite direction so as to check any rapid drifting back to neutral which would tend to cause the pressure to swing beyond normal in the opposite direction.

Steam pressure can be maintained by the supply of fuel and air regardless of combustion efficiency or good heat absorption, but the best combustion efficiency is only brought about when completely burning the fuel with a minimum excess air, creating a high heat potential or high furnace temperature so as to get good and complete transfer of heat from the gases to the water. If this is not accomplished, fuel will be wasted, since an excess of air will cause loss of heat to the stack, while a deficiency of air will result in a loss of unburned gas and carbon.

It is necessary to design the automatic combustion-control equipment so that it will regulate each coal feeder, stoker, fan, damper, fuel valve, etc., so as to bring about the correct final results in balancing the fuel supply in proportion to the demand for steam and also obtain the proper relation between fuel and air to maintain best combustion efficiency.

In view of the fact that the relationship between fan speed or damper position and air supply is not at all consistent, and stoker speed, feeder speed, and oil- or gas-valve position do not hold a definite relation to the fuel supply, it is necessary to find a definite final result as a guide in controlling the quantity-changing devices to obtain the desired relationship between fuel and air. Experience has shown that the only feasible guide for this purpose is to determine the percentage of excess air. The desired percentage of excess air for best combustion efficiency is that which will maintain the total losses due to excess air and unburned fuel at a minimum; or if the refractory deterioration is greatly increased with low excess air so that the increased cost of maintaining the furnace lining outweighs the increase in efficiency with low excess air, the percentage of excess air should be determined so as to give most economical over-all results.

The relation of steam flow from the boiler to the air flow used for combustion is a positive, instantaneous, and correct indication of the percentage of excess air, and is being used very extensively as a guide for both hand and automatic control. The relation between steam flow from the boiler and air flow used for combustion is, in reality, a relation between the heat units supplied to the furnace in the fuel and the air supplied to the furnace for burning the fuel with the desired percentage of excess air.

The third factor for controlling the combustion process where forced draft is used is found in the furnace-draft pressure, which is an indication of a balance between the induced draft and the forced draft.

The effect of a variable steam pressure upon station economy and smoothness of operation is well known, and the advantages of a feed-water flow which will parallel the steam flow and thereby eliminate the variations in pressure resulting from erratic feed-water flow are therefore obvious. Difficulties have been remedied by an automatic feed-water-control system which functions in accordance with the rate of steam flow from the boiler, the rate of water flow to the boiler, and the water level or quantity of water in the boiler drum.

# Combined Heat and Power Supply

*By W. F. Ryan*

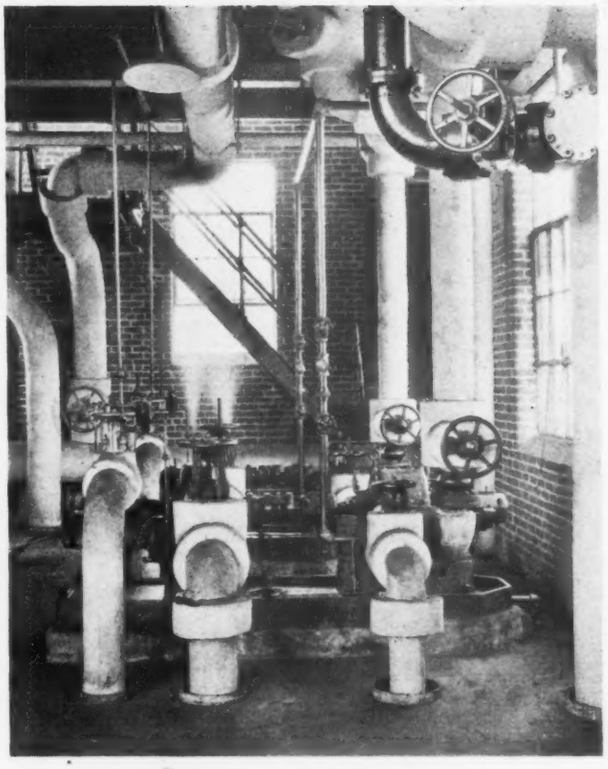
**"COOPERATION between industries and public utilities for the combined production of process steam and electric power is the outstanding development in the field of industrial power and heat supply today."**

SINCE 1925, the development of the industrial power plant has been truly remarkable. Higher pressures, higher temperatures, and higher rates of heat transfer have brought about even greater changes in the industrial steam-power plant than they have in the central station. Higher pressures and temperatures have materially increased the yield of "by-product power" from process

steam, while higher rates of heat transfer have more than offset increases in cost of plant, which higher pressures and temperatures would otherwise have produced.

The majority of high-pressure non-condensing plants have proved thoroughly reliable in operation. The turbine wheels are small in diameter, and the blades are short, so that in spite of high speed, usually 3,600 r.p.m., the stresses are low, and the availability factor high. Many of these prime movers have never been taken out of service except for routine inspection and repairs during the normal course of operation.

Where the amount of power required is large, in proportion to the demand for exhaust steam, the reciprocating engine is advantageous. In capacities up to 5,000 kw., a non-condensing engine will consume less steam per unit of output than a non-condensing turbine. The thermal efficiency of the engine is less, because radiation and external friction are greater. All of the other losses in both types of prime mover result in higher heat content of the exhaust, and no heat is actually lost thereby. These losses degrade the energy, however, and from this point of view the engine is superior.



*Turbine-driven boiler feed pumps*

The steam engine is in common use for driving low-speed pumps, compressors, and other variable-speed machines in industrial plants. In these applications, better efficiency of the driven unit, as well as lower water rate of the prime mover, favor the use of the reciprocating machine.

The full economic value of the high-back-pressure prime mover can be developed only by cooperation between industries and public utilities for the combined production of process steam and electric power. Cooperation of this type has been discussed academically for some time, but it is only now beginning to find practical application. This step is the outstanding development in the field of industrial power and heat supply today.

The first requirement for the success of such a cooperative enterprise is that the advantages must be equitably divided between the two parties. If the plant is owned and operated by the manufacturer, the utility must be assured of the continuity of the power supply. If, on the other hand, the utility owns and operates the plant, the manufacturer must be assured of the reliability of his steam supply. If a plant is built under joint ownership, there must be a just division of costs between the two services. All three of these plans are in use in this country today. All require mutual confidence, good engineering, and intelligent management, and each party must have a sympathetic understanding of the problems of the other.

The Diesel engine has been used for many years as a prime mover in industrial plants where the cost of oil fuel and other conditions have made its utilization economical.

Industries which require process steam have generally found it cheaper to use steam-driven prime movers; but even in this case oil and gas engines have been effectively used in conjunction with steam boilers. Boiler-feed water has been used as a cooling medium in cylinder jackets, and in some cases heat in exhaust gas has also been utilized for preheating feed water.

Recently a number of Diesel engines have been installed to perfect the heat balance of industrial plants. Attention has been called to the lack of synchronism between steam and power demand in the average industrial plant. In the past it has been common practice to design the electric power plant to meet average conditions, and to blow exhaust steam to the atmosphere wherever the demand for power was out of proportion to the demand for exhaust steam. Condensing units, to take care of this condition, are impracticable in plants which lack an abundant supply of cold water. A purchased power connection is also frequently undesirable, on account of the high cost of furnishing current for intermittent use; also the hazards of interconnection make it difficult to secure an exact balance by this method. In this situation the Diesel engine generator becomes a very effective method of perfecting the balance.

Internal-combustion engines are also commonly used for starting up service in isolated plants. Where all auxiliary are motor driven, as is now common practice, and where electric current is required for fuel supply, which is usually the case in pulverized coal plants, the boiler cannot be put into operation after a complete shutdown without some auxiliary source of power. A small gasoline-engine-driven generator is usually sufficient for this purpose.

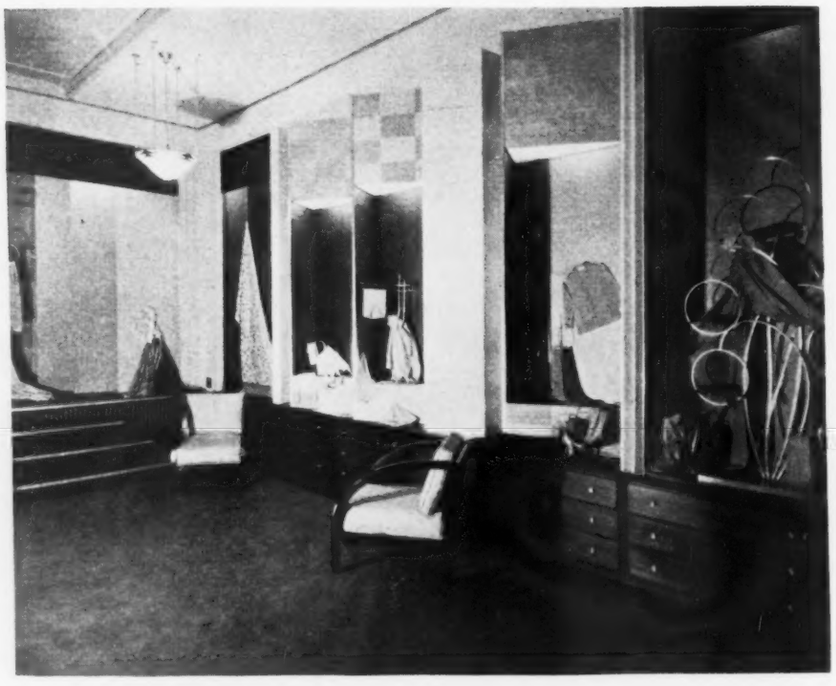
There are industrial plants in the United States which use as much as 100,000,000 gallons of cooling water per day. In some cases this water is heated as much as 40° F. This represents a potential energy source, at Carnot efficiency, of more than 30,000 kw. continuously. It would be costly, but nevertheless entirely feasible from an engineering point of view, to install apparatus which would extract more than 10,000 kw. continuously from this warm water, without any expenditure for fuel.

Other plants discharge smaller quantities of water at much higher temperatures. Some chemical plants in Europe are actually extracting electric power from hot waste liquors.

Hot gases are also being used directly, or through the medium of an air heater, for drying and for other manufacturing requirements.

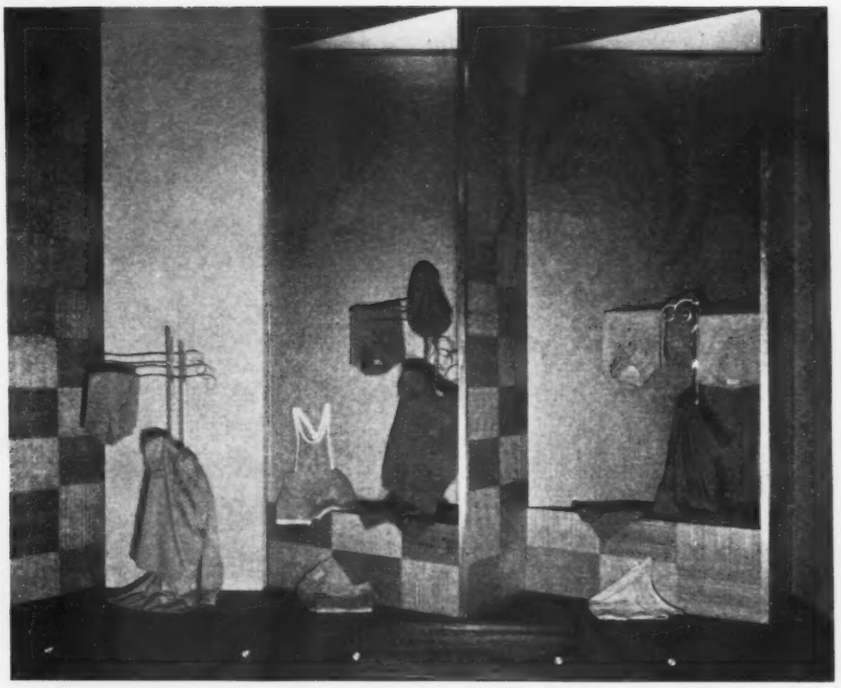
*East end of Durene gallery with stage for fashion shows, lectures, etc. Merchandise illustrated in photograph includes hosiery from Ipswich Mills, Inc., Swiss Hosiery Mills, and Watkins Hosiery Mills; embroidered batiste, voile, and pique from James McCutcheon & Co., and decorative silk-and-Durene fabrics from F. Schumacher & Co.*

# *Permanent* Exhibition Sh



*View looking up south side from stage, displaying embroidered pique from James McCutcheon; elastic merchandise from Chesterman-Leeland Co.; vests, panties and brassieres from Norwich Knitting Co.; hosiery from Buster Brown Hosiery Mills, Elizabeth City Hosiery Co., and Waldensian Hosiery Mills; and other items. Background fabric is mercerized broadcloth.*

*Frock by Nanty Frocks, Inc., of mousseline-de-soie embroidered in quality Durene*



*A group display of knitted wear from the Augusta Knitting Corp. shown recently in the new permanent display gallery of the Durene Association in New York*

# Shows Wide Variety of Durene Uses

THE wide variety of uses to which Durene yarn may be put, in woven and knitted fabrics and in ready-to-wear, is strikingly illustrated in the permanent exhibition of merchandise now open at the headquarters of the Durene Association of America, in New York City. The display presents an artistic picture, both in itself and in its setting; it occupies a spacious exhibition room, specially designed for the purpose. The exhibition was conceived with the aim of showing retail store representatives, buying agents and other distributors, the many possibilities of Durene.

Current fabrics and fashions from manufactures throughout the country are on display in this exhibit. The articles shown are constantly changed to keep the display up-to-the-minute, and to meet the promotion needs of manufacturers whom the Durene Association serves. Late summer and fall merchandise is now being displayed. Then, too, there is much merchandise of current interest to consumers—for the exhibit room is open to women's club groups, students, and others in the consumer class who seek to further their knowledge of textile developments. All exhibits represent the standard of quality maintained by the Durene Association members, who represent about 85% of the mercerized cotton yarn of the country.

Of interest in this collection, also, are experimental examples, illustrating the research and out-reaching efforts of knitters and weavers who are users of the mercerized yarn now known by the general term Durene.

Although, as mentioned above consumers are admitted to this exhibition, the chief and constant visitors are retail store buyers, stylists, fashion editors, representatives of buying agents, and store groups. Exhibitors are protected against inspection of their displays by competitive manufacturers, the display room being closed to all manufacturers when advance, or experimental, exhibits are being shown.

The Durene display of yarns, fabrics and ready-to-wear presents a pleasing expression of the modern trend in interior decoration. As shown in the illustrations, hangings, furniture and fixtures are of a distinctly modern character. Booths, with the indirect lighting of the modernists, provide spacious and attractive exhibit arrangements. The bulk of Durene consumption at present is divided between hosiery and underwear manufacturers, and therefore a major portion of the current exhibit is given over to the knitting field. The woven fabric field, however, is becoming more and more important. Jacquards, velveteen, decorative fabrics, broadcloths, embroidered batiste, voiles, marquisettes, piques, shantungs and the mousseline-de-soie illustrated in the gown shown above are also to be found in the exhibition.

A recent survey conducted by the Durene Association has brought to light a greatly increased interest in the use of Durene in decorative fabrication. The present display of this type of merchandise at the exhibition is to be enlarged shortly.

# Thermal Transmission of Fabrics

## *By Ephraim Freedman*

THIS ARTICLE is an abstract of a paper presented at the 33rd annual meeting of the American Society for Testing Materials, held at Atlantic City, June 23 to 27, 1930. Mr. Freedman is director of the Bureau of Standards of R. H. Macy & Co., New York.

INTEREST has often been expressed in the thermal insulation afforded by textile fabrics against the temperatures and wind velocities encountered during wintry weather. Specifically, the question is raised as to the superiority of one fabric over another for use as a blanket or as an outer- or undergarment. Looking over the literature on heat transmission through insulating materials, it was found that most methods of test were concerned with the temperature range suitable for steam pipe coverings and furnaces, or else suitable for refrigerating machines. Relatively little attention has been paid to thermal transmission over the range from 20 to 100° F. with air circulating past the material under test.

Various methods for testing the thermal insulation of fabrics have been tried. However, none of the methods previously advanced was considered sufficient for the teresting of fabrics for one or more of the following reasons: (1) The temperatures of the surfaces were not maintained constant, (2) the temperatures at the surfaces of the specimen were not definitely measured, and (3) the conditions of test did not approximate those under which textiles are normally used.

### Apparatus

The calorimeter, *c*, Fig. 3, around which is wound the specimen, *S*, under test, is of novel construction. It is a cylindrical container measuring 10 in. in height and 3 in. in outside diameter, and the wall encases the bulb of a xylene thermometer. This bulb is made of bronze tubing, 0.090 in. in outside diameter and 400 in. long, wound helically on a cylinder of $\frac{1}{32}$-in. sheet copper. The spaces between convolutions are filled with lead, so as to form a smooth outside surface. This gives a thermometric element with a total conducting surface of nearly 100 sq.in. The indicating instrument for this thermometer has a range from 90 to 110° F. with scale divisions of $\frac{1}{4}$° F., and a rheostat. This duct is embedded in cork within a portable table 85 in. long, 44½ in. wide, and 32 in. high. Mounted on this table is a General Electric Type DR-4 refrigerating unit, *R*, with its cooling fins, *F*, projecting into the duct. Another aperture in the duct permits the insertion of the calorimeter, together with a thermometer, *T*, and anemometer, *A*. These devices are mounted on the underside of a platform (see Fig. 2) which covers the aperture. The calorimeter is insulated top and bottom with $\frac{3}{8}$-in. asbestos fiber board.

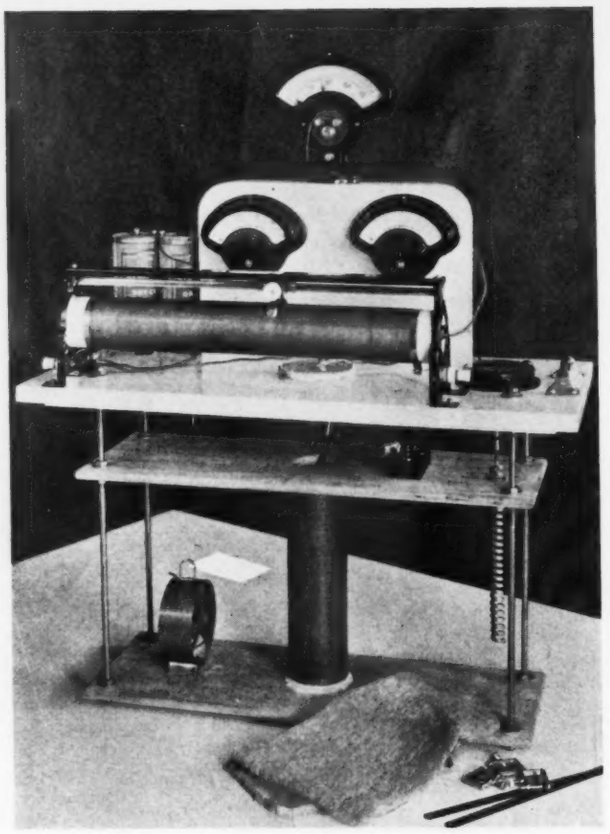


*Fig. 2. Platform with calorimeter, thermometer, anemometer, rheostat and recording instruments*

A heater, *H*, of nichrome wire wound through mica is placed within the calorimeter, and leads are brought through the cover to the necessary electrical measuring apparatus and control equipment mounted above the table. The heater is connected to the 115-volt d.c. supply circuit, through a rheostat, ammeter, and the relay contacts; a voltmeter is connected directly across the heater. Should the temperature of the calorimeter rise beyond some predetermined point, contact will be established for battery current through the coils of the relay to open the heater circuit.

The component parts of the apparatus were calibrated and trial runs were made to determine the reproducibility of results.

### Materials

Specimens of wool, cotton and wool, and cotton materials (see Table I) of various constructions, weights, and thicknesses, and a specimen of Alaska seal peltry were subjected to test of thermal transmission.

The material enumerated was chosen so as to give a picture of its behavior under test. The determinations of composition, count, and weight were conducted as prescribed in the standard methods of the American Society for Testing Materials. The thickness of the various materials was determined by an optical method.

A test in the thermal transmission apparatus is conducted substantially as follows: The duct is cooled to the desired temperature by means of the refrigerating unit. A specimen is wrapped closely, but without tension, around the calorimeter, its ends are drawn between two thin strips (hack saw blades were found satisfactory) so

# Table I. Materials Tested and Results Obtained

| Description | Composition | Count: Ends | Count: Picks | Weight, Oz. per Sq. Yd. Under Prevailing Conditions | Thickness, In. | Watts Required for Temperature Maintenance of Various Fabrics: Nominally Still Air: Total | Nominally Still Air: Per 1°F. Difference | Wind Velocity 14.2 mi. per hr.: Total | Wind Velocity 14.2 mi. per hr.: Per 1°F. Difference | Thermal Conductivity in B.t.u. per Sq.Ft. per Hr. per 1°F.: Nominally Still Air | Thermal Conductivity in B.t.u. per Sq.Ft. per Hr. per 1°F.: Wind Velocity 14.2 Mi. per Hr. | Insulation Factor Based on Electrical Input per 1°F. Wind Velocity 14.2 Mi. per Hr. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Blanket material, broken twill weave, napped surface | Wool | 28 | 25 | 8.24 | 0.215 | 17.2 | 0.311 | 38.9 | 0.613 | 1.617 | 3.188 | 3.79 |
| 2. Blanket material, broken twill weave, napped surface, washed | Wool | 28 | 26 | 8.67 | 0.179 | 20.9 | 0.337 | 37.9 | 0.601 | 1.752 | 3.125 | 3.87 |
| 3. Blanket material, broken twill weave, napped surface | Wool | 24 | 22 | 8.58 | 0.274 | 17.7 | 0.303 | 38.8 | 0.560 | 1.576 | 2.912 | 4.15 |
| 4. Blanket material, broken twill weave, napped surface, washed | Wool | 28 | 22 | 9.44 | 0.232 | .... | .... | 32.6 | 0.544 | ..... | 2.829 | 4.27 |
| 5. Blanket material, twill weave, napped filling | Cotton | 37 | 26 | 7.24 | 0.204 | 16.9 | 0.329 | 31.4 | 0.546 | 1.711 | 2.839 | 4.26 |
| 6. Blanket material, twill weave, napped filling | Cotton, 96.6%; wool, 3.4% | 35 | 28 | 7.22 | 0.168 | 17.5 | 0.347 | 33.9 | 0.606 | 1.804 | 3.151 | 3.84 |
| 7. Blanket material, wool-faced, cotton ground | Wool, 65.8%; cotton, 34.2% | 22 | 19 | 12.8 | 0.245 | 16.7 | 0.306 | 27.5 | 0.458 | 1.591 | 2.381 | 5.08 |
| 8. Duck, plain weave | Cotton | 34 | 29 | 6.4 | 0.049 | 27.8 | 0.526 | 25.0 | 1.670 | 2.735 | 8.684 | 1.39 |
| | | Wales | Courses | | | | | | | | | |
| 9. Overcoating, brushed knit | Wool | 13 | 16 | 19.65 | 0.256 | 18.1 | 0.319 | 29.5 | 0.476 | 1.659 | 2.475 | 4.88 |
| 10. Overcoating, curl-faced | Wool | 16 | 22 | 20.86 | 0.360 | 14.5 | 0.272 | 25.6 | 0.427 | 1.414 | 2.220 | 5.45 |
| 11. Overcoating, pile knit | Cotton, 39.6%; wool, camel-hair and llama, 60.4% | Wales | Courses | | | | | | | | | |
| | | 17 | 17 | 15.97 | 0.279 | 18.0 | 0.301 | 32.8 | 0.515 | 1.565 | 2.678 | 4.52 |
| 12. Lining, coat, twill weave | Cotton | 54 | 51 | 5.96 | 0.065 | .... | ..... | 88.0 | 1.36 | ..... | 7.072 | 1.71 |
| 13. Lining, coat, outing flannel | Cotton | 50 | 53 | 6.25 | 0.097 | .... | ..... | 67.9 | 1.05 | ..... | 5.460 | 2.21 |
| 14. Overcoating, pile fabric | Wool | .. | .. | 15.5 | 0.444 | 14.4 | 0.242 | 39.6 | 0.593 | 1.258 | 3.084 | 3.92 |
| 15. Gauze | Cotton | 27 | 26 | 0.842 | 0.019 | 27.5 | 0.483 | 132.5 | 2.04 | 2.512 | 10.608 | 1.14 |
| 16. Alaska seal | Fur | .. | .. | 21.4 | 0.360 | 14.6 | 0.222 | 24.2 | 0.357 | 1.154 | 1.856 | 6.57 |

that only one layer of the specimen is in contact with the cylinder, and the strips are secured by clamps. The blower is set in motion. Current is supplied to the heater and the voltage across it is adjusted by a slide-wire resistance until a constant temperature, approximately 98.6° F., is established. This adjustment requires approximately one-half hour. At least three readings are then taken at ten-minute intervals. The number of watts consumed is calculated from the voltmeter and ammeter readings.

Measure of the thermal transmission of the specimen in terms of watts per 1° F. is obtained by dividing the electrical input by the difference in temperature between the calorimeter wall and the air within the duct. A series of check tests disclosed that it was necessary to maintain an electrical input of 2.325 watts per 1° F. difference in order that the elevated temperature of the bare calorimeter wall remain constant when subjected to low temperature and a wind velocity of 14.2 miles per hour. With nominally still air an electrical input of 0.427 watts per 1° F. difference was recorded with the calorimeter bare.

The watts required by the different specimens when subjected to temperature differences between calorimeter wall and duct of about 60° F., with nominally still air, and with wind velocity at 14.2 miles per hour, are also shown in Table I.

The results of the different specimens tested with wind velocity at 14.2 miles per hour disclosed a range in electrical input from 0.357 to 2.04 watts per 1°. F. With nominally still air a range of 0.222 to 0.526 watts per 1° F. was noted. A decrease in heat transmission was noted after specimens Nos. 1 and 3 were washed (see specimens Nos. 2 and 4). With nominally still air, specimens Nos. 8 and 15 required greater electrical input than did the bare calorimeter. While the readings taken with nominally still air may not be as reliable as those taken with wind velocities because of inability to control the convection currents, the method of test approximates conditions often encountered in confined spaces, such as vaults, cold-storage chambers, or non-ventilated rooms. The results show the suitability of the apparatus for the testing of fabrics, and demonstrate the duplication of data obtained with it.

While the results are expressed in terms of watts per

*(Continued on page 97)*

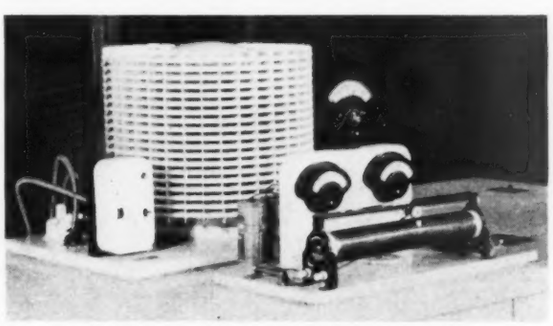


*Fig. 1. Thermal-transmission apparatus*

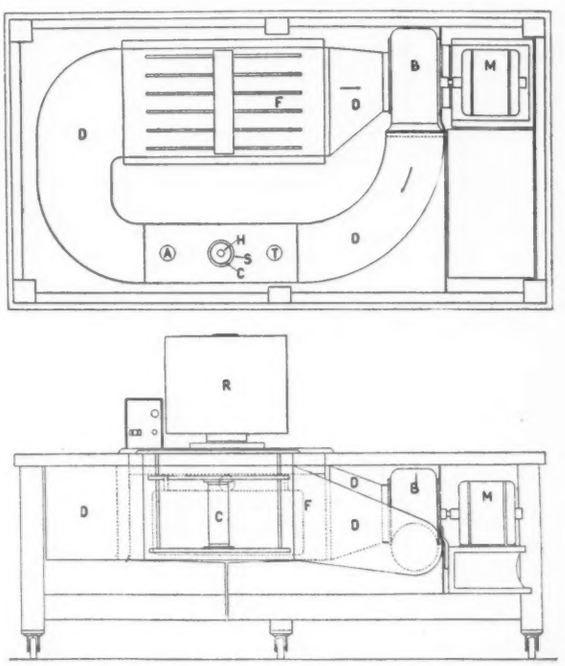



*Fig. 3. Plan and elevation of thermal-transmission apparatus*

# OVERSEERS' ROUND-TABLE

**THIS department offers a new subject for discussion each week and gives readers' comments on problems introduced during previous weeks. The subject which was opened four weeks ago is closed this week and a summary of contributed ideas is given on opposite page**

◆

## *Choosing an Assistant*

*Editor, Overseers' Round-Table:*

UNDOUBTEDLY I would choose assistants for their general intelligence rather than their ability as operatives.

No super or overseer wants an assistant to take his place, in case of absence, who is merely a good stripper, conscientious oiler, bander, or fixer. An assistant, like the overseer himself, should be a man of average, or over average, ability, able to do any machine and production calculation in the department. He should be the man in that department with the best moral fiber, trained reasoning power, tact, control over men and the ability to cause them to carry out his instructions. If such a man is present among the better operatives or longer service men, so much the better—give him first consideration. A. COOPER.

*Editor, Overseers' Round-Table:*

IN PICKING an assistant choose the man who is studying his job, and discard the old principle of giving the oldest man the job, for in most cases the old hands are in a rut and never make able assistants.

In my opinion an assistant should be able to handle the entire operation of the room. An overseer who has such an assistant can forget worries and fears when he is absent.

The overseer should never be afraid of his position if he is alert, watching the work and getting results, but if your assistant is trying to succeed, has ability and intelligence, he will get ahead somewhere for you can't keep a good man down. S. MERRY.

## *The Question of Rest Periods*

*Editor, Overseers' Round-Table:*

REGARDING REGULAR rest periods I would suggest that no definite time allotments should be made, but that it should be the employe's privilege to take a few minutes off during the morning and afternoon for smoking or relaxing. In this way the workmen will not feel that they are being driven to their work and, consequently, will do their work better and produce better results.

The overseer of the department should, of course, see that this privilege is not abused. Employes should not be allowed to take time off too often and they should arrange to have their work caught up or have a fellow worker watch it while they take their short rest. In many mills there is a spare hand about who fills in whenever an employe is out and it might be arranged to have this spare hand look after the work during the rest period. FRANCIS J. MCNEICE, Overseer of Dyeing.

## *Problem of Who Should Hire*

"THIS happens to be a nice cool day," Superintendent Chase settled comfortably in his chair and addressed the overseers, "so I think it is a good time to bring up a subject which seems to arouse heated controversy. I wouldn't put the question if I didn't know that you men have proved that you can enjoy a good argument, and perhaps learn something from the other fellow, without letting the personal element enter. So today we will discuss whether the overseer, the superintendent, or an employment manager should hire the help."

"I'm going to beat Bill to it and have my say first this time," Pete spoke up, "and I'm going to come out flat and say that I do not think that the overseer should hire help. In the first place the overseer is busy and he would waste a lot of time interviewing workers. You can't very well have the prospective worker walk into the overseer's department so it means that the overseer must walk out to the mill office every time he wants to interview anyone. In the next place we are all swayed by friendship and unconsciously the overseer will hire a friend or relation in preference to an outsider, even though the latter may be the better worker. This soon leads to cliques in a department and to some ill feeling. I think someone else should hire the help."

"I might add a thought," Jerry joined in, "by saying that what Pete has said about the overseer being too busy to interview help applies also to the super, so that narrows it down to having someone in the office or elsewhere hire all the help. One of the advantages I see in such a system is that a worker can be placed in the position for which he is suited. A man interviewing workers all the time soon becomes a very good judge of character and aptitude, and can often tell better than the prospective worker just what he, or she, is suited for. Then again the whole thing is done on a non-personal business basis and done by a specialist."

"The super sure has brought up a subject which has raised my temperature," Bill took the floor,

## *The Problem of Training New Workers*

*Editor, Overseers' Round-Table:*

THIS IS MY first experience in writing a discussion, but I am interested in the subject of training inexperienced help.

I agree with Bill that the old methods are more suitable for the average mill. I have had experience with Pete's training schools and I do not approve of them for the reason that there is too much partiality shown. If it could be worked out that every inexperienced worker would have an equal chance for advancement, if qualified, it would be all right, but when the big fellow pushes his friends along without the necessary qualifications, then both the inex-

## Hire the Help

"but I'm glad to have a chance to speak my say and present the other side of the picture. I believe absolutely that the overseer should hire his own help. He knows exactly what he wants and that is a great deal. Then again when he hires his own help he is bound to back his own judgment and make every endeavor to fit the new worker into the organization. If someone else hires the help, the overseer can pass the buck and say that the employment manager has sent him poor workers and not the kind he wanted, and all such things. A little friction between the overseer and the employment man soon leads to more trouble, and soon the overseer wants to fire everyone sent to work for him and the employment man says the overseer doesn't know a good worker when he sees one. You can readily picture what such a state of affairs would do to an organization."

◆

**Do *you* think that the overseer, the superintendent, or someone definitely assigned to the task should hire the help?**

*Overseers and others are invited to discuss this and other questions brought up in the super's talks. Letters accepted and published will be paid for without regard to length. Brevity is desirable.*

perienced and the experienced help are dissatisfied. The first thing you know you are furnishing other plants with experienced workers, for every overseer knows that jealous workers increase labor trouble and turnover. C.E.S.

*Editor, Overseers' Round-Table:*

I BELIEVE that Pete's idea of a sort of minor training school would work out very well in the average size mill. Personally I favor the real training school where the mill is large enough to warrant it, but it is out of the question for the smaller units.

If one operative, carefully chosen, should teach all the inexperienced help in a particular department you would practically have a training school on a small scale and it would be much better than just throwing the new worker in with anyone who had been at the job a long time. It would be of great benefit to have the new operatives learn something about the preceding and succeeding departments and this would be difficult to do under the old conditions. With the system outlined the operative picked out knows that

## Summary of Discussion on the Changing of Workers From One Machine to Another

**BILL'S opinion that the worker should not be moved about from one machine to another received more support than Pete's ideas, although the contest was close. One point upon which almost all agreed, however, was the advisability of having the new worker learn something about the preceding departments. The majority felt that a general knowledge of operations should be followed by specializing, but several contributions brought out the advantages accruing to the mill which had versatile workers who were, none the less, specialists in one line. There was no question but that workers should be moved when the move meant advancement and recognition of work well done.**

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teaching is the main part of the job and is not annoyed by having some beginners from another department about; in fact the operative soon takes pride in teaching.

M. L. DAVIS.

*Editor, Overseers' Round-Table:*

THE TRAINING school method is the most efficient for the mill and the inexperienced worker. Some of the advantages are that the workers learn more quickly, they are shown the right methods, and there is an opportunity to teach them a little theory about their work. Another advantage to the mill is that there is less inferior or damaged work with the training school method. Workers can be placed on the line and they are so trained that they do not slacken production.

Under the old method most operatives do not care to teach raw help and the results are that workers are never properly taught and make inferior workers for a longer period.

JOHN PICONI,
Supt. Heck Silk Mills.

## *Changing Workers from One Machine to Another*

*Editor, Overseers' Round-Table:*

I BELIEVE in the shifting of workers, but due care must be exercised as shifting means a slight let-up in production. Before shifting a worker another should always be prepared to take the vacant place.

At times of sickness or trouble workers who have been shifted about make valuable replacements. I believe in using a merit system in changing help as it gives them an objective to work for and we all like to feel that we are getting ahead. The merit system also has the advantage of keeping ill feeling at a minimum.

The Overseers' Round-Table is great. It has all our foremen arguing, pro and con. Keep it up. W. L. JANES.

*Editor, Overseers' Round-Table:*

MOVING OPERATIVES from one machine to another should not be done in the case of experienced workers except for an emergency. I believe that not only should operatives be kept doing the same class of work, but they should actually stay on the identical machine wherever possible.

There is no doubt that, in training workers, it is advisable to teach them more than one set operation, and there is no question that a worker should be advanced to a better job when a vacancy occurs, but simply moving about for the sake of change does not lead to high quality work in my mind. D.A.M.

# NEWS about MEN

G. H. GEITNER, of Hickory, N. C., was recently elected president of the Falls Mfg. Co., and the Southern Mfg. Co., both of Granite Falls, N. C., succeeding the late J. D. ELLIOTT.

JOHN BARNES, president of the Blood Knitting Co., Amsterdam, N. Y., has returned from a sojourn in Europe.

H. ARTHUR LIGON, president and treasurer of the Arcadia Mills, and treasurer of the Fairforest Finishing Co., delivered the weekly address to the Spartanburg Rotary club, his subject being "Ethics in Business."

R. C. BOGER, JR., son of R. C. BOGER, president of the Boger & Crawford Spinning Mills, Lincolnton, N. C., is rapidly recuperating after an automobile accident near Salisbury, N. C., in which he was severely injured.

H. E. MACHOLD, vice-president of the Skenandoa Rayon Co., Utica, N. Y., has been chosen head of the Jefferson County delegation to the Republican State Convention at Albany late in September.

F. C. DUMAINE, treasurer of Amoskeag Mfg. Co., Manchester, N. H., has been connected with the company for 50 years this month.

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J. J. MURPHY, treasurer of the United Waste Mfg. Co., Cohoes, N. Y., was granted permanent possession of the Troy Horse Show Association trophy after his entry in the exposition last week was awarded championship honors.

C. P. THOMPSON, treasurer of the Trion (Ga.) Mills, has been chosen president and a member of the board of directors of the Farmers & Merchants Bank, of Summerville, Ga.

J. FRED WELCH has resigned his position with the Charlotte (N. C.) Textile Machinery Co., and is now connected with C. L. Upchurch & Sons, of Charlotte and Athens, Ga.

S. OSHIMO, managing partner of the Southern Cotton Co., of Dallas, Texas, which exports much cotton to Japan, has returned from a several months trip to that country.

J. H. REANEY, general manager of the Union Mills, St. Johnsville, N. Y., has been elected a director of the Mohawk Valley Towns' Association for the ensuing year.

ROBERT M. BENT of the sales force of the A. D. Windle Co., Millbury, Mass., has resigned to accept a similar position with the Wachusett Wool Waste Co., Worcester, Mass.

SAMUEL STEWART, agent of Bates Mfg. Co., Lewiston, Me., has returned to the mill after a six weeks' European vacation.

MISS RUTH MCWHORTER, publicity director for the Silk Association of America, Inc., sailed on the "Belgenland," June 28 for a vacation trip through the British Isles and Belgium.

HENRY COLEY, in charge of the traveling exhibition loom of the M. J. Whittall Associates, Ltd., Worcester, Mass., has returned from an 11 months' tour of Kansas, Colorado, Oregon, Washington and Utah. He was accompanied by CHARLES SMITH, weaver, and PAUL C. FANEUF, chauffeur.

DR. W. C. HAMRICK, head of the Hamrick group of textile mills, has been elected chairman of the board of Gaffney, S. C., branch of the Peoples State Bank.

T. D. WARDLAW, head of the firm of T. D. Wardlaw & Son, textile supply firm, of Toronto (Ont.) Can., has left to spend three months in England and Europe.

F. SEIFART, president and treasurer of the Hudson Silk Hosiery Co., Inc., of Charlotte, N. C., accompanied by his family, is traveling abroad at present on an extended business and pleasure trip to Germany. He will be away about three months, and will visit the leading silk hosiery manufacturing centers of Germany.

MRS. GEORGE B. HISS, widow of the late GEORGE B. HISS, one of the pioneer cotton manufacturers of North Carolina, has given four scholarships of $400 each, to students selected by the faculty of the Charlotte high school, for a college education, as a memorial to her late husband.

H. J. NICKEL, who has for some time been with Mills & Gibb, New York, has become associated with the sales department of chenille goods of the Callaway Mills, and will represent them in the Chicago territory.

D. T. BAGWELL is now superintendent of the Mary-Louise Mills, Mayo, N. C.

*Abbott P. Smith, president of the New Bedford (Mass.) Textile School for the last eight years, who recently tendered his resignation. He retains his position on the board of trustees, of which he has been a member for 27 years.*

F. M. BRODIE, superintendent of spinning with the Mohawk Carpet Mills, Amsterdam, N. Y., was elected a director of the Y. M. C. A. in that city at the recent organization meeting.

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A. F. BRUTON has resigned his position with the Hannah-Pickett Mills, Rockingham, N. C., and has gone to Franklin, N. C., where he has a similar position.

W. B. GORE, who has been superintendent of Morgan Cotton Mills, Inc., Marshville, N. C., cord tire fabric plant, for the last several years, has been appointed general manager of the mills, succeeding GEORGE MEDLIN, who recently resigned.

S. A. MOFFITT has accepted the position of superintendent of the cotton finishing plant of Amoskeag Mfg. Co., Manchester, N. H. It was erroneously reported that JOHN E. MOFFITT had accepted this position.

H. R. LANG has resigned as superintendent of the Hermitage Cotton Mills, Camden, S. C.

FREDERICK G. LINDSTROM has been appointed assistant superintendent of the Palmer (Mass.) Works of the Wickwire Spencer Steel Co., to succeed STANLEY F. HUNT who is to join the sales department of the company after a vacation. Mr. Lindstrom has been at the Palmer works for 20 years, lately as a department superintendent.

JOE MARQUIS is now superintendent of the American Finishing Co., Memphis, Tenn.

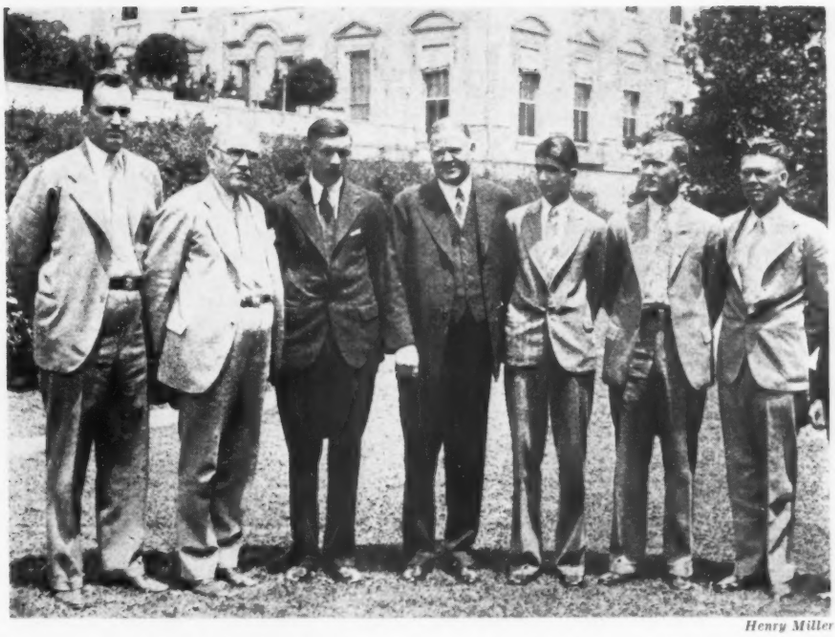
CHARLES E. SMITH is now superintendent of Washington Hosiery Mills, Nashville, Tenn.

JOHN T. KIRK, for the last 15 years general superintendent of the Nashawena Mills, New Bedford, Mass., has been appointed manufacturing agent. He succeeds JOHN L. BURTON, agent since the Nashawena started production in 1910. Early in the year, Mr. Burton was taken quite ill, and at present is recovering at his summer home in Oak Bluffs. He will continue to serve the company in an advisory capacity. JAMES HARWOOD, former overseer of the dressing department, succeeds Mr. Kirk as general superintendent, and EDWARD NEILD, assistant superintendent, is to be superintendent.

I. M. GOREE has accepted a position with Cooley & Marvin, public accountants of Boston, Mass. He is connected with the Greenville, S. C., office, and entered upon his new duties July 1. He has been night superintendent of the Whitmire, S. C., plant of the Aragon-Baldwin Cotton Mills, Inc., which position he resigned.

WILLIAM TAUNQUIST, superintendent of the Sturbridge (Mass.) Finishing Co., and HELEN ADAMS, New York, were married in the latter city on June 27. They are spending their honeymoon in Bermuda.

M. A. TESTERMAN has resigned as superintendent of the Hickory (N. C.) Weavers, Inc.



Henry Miller

*Champion cotton and corn growers of South Carolina welcomed by President Hoover. Left to right: Charles L. Jackson; Representative H. P. Fulmer; Pelham Way, corn growing champion of South Carolina; President Hoover; Nash Gray, cotton growing champion of South Carolina; R. E. Naugher, master teacher of vocational agriculture of South Carolina; and W. H. Garrison, South Carolina state superintendent of agriculture.*

W. E. MORTON, superintendent of the Cannon Mills, Plant No. 3, York, S. C., has been re-elected mayor of York.

CHARLES F. SMITH is now superintendent of the Washington Hosiery Mills, Nashville, Tenn.

T. B. REYNOLDS, superintendent of the Helen Mills of Alabama, Huntsville, Ala., has resigned. He has been succeeded by J. F. YOUNG, JR.

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J. D. TEMPLETON, formerly superintendent of the Whitmire (S. C.) plant of the Aragon-Baldwin Cotton Mills, Inc., has accepted the position of superintendent of the York Wilson Mills, Inc., Red River, S. C., a company which was recently reorganized.

EDWARD J. SIMONSON, for four years assistant superintendent, and for the last seven and one-half years superintendent of American Velvet Co., Stonington, Conn., has resigned, effective July 1. Mr. Simonson has not made any plans for the future.

C. E. WISNER has resigned as superintendent of the Scottdale (Ga.) Mills.

C. H. ZEMP is now superintendent of the Hermitage Cotton Mills, Camden, S. C.

WILLIS E. JOHNSON, JR., who for the last year has been connected with Columbia (S. C.) Mills, a division of the Mt. Vernon Woodberry Corp., of Baltimore, Md., has been appointed assistant superintendent of Columbia Mills.

GEORGE R. PAIGE, overseer of carding for the Black Bear Woolen Mills, Ludlow, Vt., has resigned his position with that company.

READING MONTGOMERY SMITH, assistant general superintendent of the Channing Smith Textile Corp., Cherry Valley, Mass., and a son of its founder, the late Channing Smith, and HELEN STREETER, Worcester, Mass., were married in the latter city on June 28.

HARRY A. BILLINGS, works manager of the Draper Corp., Hopedale, Mass., and MRS. BILLINGS, have returned from several weeks' vacation passed on the West Coast.

W. H. CARTER, overseer of carding at the Sally B. Mills, of the Avondale Mills, Sylacauga, Ala., has resigned.

LYLE GIFFORD, foreman of the finishing department of the Oneita Knitting Mills, Utica, N. Y., and ELIZABETH SHAY were married last week in that city.

E. C. MILLARD has resigned as boss carder with the Broadalbin (N. Y.) Knitting Co. to take a position at Ballston.

THOMAS RAE and CHARLES S. ROBERTS, overseers for 52 and 47 years, respectively, for William Skinner & Sons, Holyoke, Mass., are retiring from active service July 1. Mr. Rae entered the company's employ only four years after the concern moved to Holyoke from Williamsburg. For the last 35 years he has been overseer of the raw silk department. Mr. Roberts started with the firm about the same time, but left to work in New Bedford two years before entering on his 47 years of continuous work in Holyoke, 35 years of this time being overseer of the weave shed.

J. F. SENTEL, who for the last several years has been overseer of carding in the Victory Mfg. Co., Fayetteville, N. C., recently resigned to become superintendent of carding at the Borden Mills, Inc., of Kingsport, Tenn.

H. M. MILES has succeeded H. L. ROBINSON as superintendent of spinning at the plant of the Cherokee Spinning Co., of Knoxville, Tenn.

HARMON A. POOLE has resigned as mill engineer with the Dutchess Bleachery, Inc., at Wappingers Falls, N. Y., to accept a similar position with Joseph Bancroft & Sons Co., at Wilmington, Del.

T. FRANK SWEENEY has accepted the position as overseer of finishing for St. George Woolen Mills, St. George de Beauce (P. Q.) Canada. Mr. Sweeney was formerly employed at Buckland, Conn.

ROBERT THOMPSON has been retired on a pension by the Linen Thread Co. of Massachusetts, North Grafton, Mass., after more than 50 years of service.

A. J. WRIGHT, formerly connected with the Rockfish Mills, Inc., Hope Mills, N. C., has returned to the St. Pauls (N. C.) Cotton Mills, as second hand in twisting.

L. J. COLEY, who has been overseer of night spinning at the plant of the Eastern Mfg. Co., of Selma, N. C., for some time, has recently been promoted to day overseer of spinning.

HARRY ENGLE, foreman of the finishing department of the Bigelow-Sanford Carpet Co., Amsterdam, N. Y., has been discharged from the city hospital and is now on the way to recovery from severe injuries received in a motor car accident.

JAMES W. FRY, late member of Fry & Crawford, Philadelphia, a prominent member of sales worsted yarn trade, who died recently, left an estate that has been appraised at $417,902 according to inventory filed.

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J. ALLEN FITTS, former master mechanic for the J. D. Clark Co., Rochdale, Mass., has accepted a similar position at Claremont, N. H.

FRANK S. KINNEY, second hand in spinning at the Darlington (S. C.) Cotton Mills for several years has resigned and gone to Florence, S. C., where he is connected with the Life Insurance Co. of Virginia.

# NEWS about MILLS

## Cotton

**Merrimack Mfg. Co.,** Huntsville, Ala., has announced a curtailment of its working time to four days a week, a total of 40 hours. Heretofore the mill has been operating steadily on a five-and-one-half-day weekly schedule.

**Pacific Cotton Mfg. Co.,** Monrovia, Cal., which was recently purchased by C. L. Mauldin, is planning a number of improvements and has placed contract for new machinery. The plant has equipment to make cords and twine.

***Perfect Spinning Mills, Inc.,** Putnam, Conn., capitalized for $50,000, plan to start operations shortly in one of the former Manhasset mills.

**Goodyear (Conn.) Cotton Mills, Inc.,** will close on June 28 until July 7 for vacations and inventory. Five-year operatives are given vacations with pay.

**Willingham Cotton Mills,** Macon, Ga., are completing installation of humidifiers in the spinning room. The Bahnson Co., Winston-Salem, N. C., furnished the humidifying equipment.

**Louisville (Ky.) Cotton Mills,** have had their charter amended, the name being changed to **Louisville Textiles, Inc.,** and capital stock increased from $600,000 to $2,550,000. This is in line with action of stockholders in taking over and merging in the woven fabric lines of **Louisville Textile Co.,** which was owned and operated by officers of Louisville Cotton Mills, which company for years has produced textile yarns of cotton exclusively.

***Lancaster Mills,** Clinton, Mass., in liquidation, have commissioned Samuel T. Freeman & Co., Boston and Philadelphia, auctioneers, to sell all of their property other than real estate by public auction the first week in August.

**Seamans & Cobb Thread Mills,** Hopkinton, Mass., shut down on June 26 for a ten days' vacation.

**Butler Mill,** New Bedford, Mass., has resumed operations at its plant following a week's shutdown.

**Otis Co.,** Ware, Mass., shut down on June 26 until July 7 for vacations.

***Thorndike Co.,** West Warren, Mass., will dispose of practically ten mill units by sale through its real estate department, providing space for moderate size manufactures. The cotton division of the company is being liquidated, but the woolen division is continuing in operation, running about 75% capacity.

**Amoskeag Mfg. Co.,** Manchester, N. H., will close its plant July 3, reopening July 7. This is in accordance with a new program adopted by the management which eliminates the customary two weeks' shut down in the summer and substitutes three week-end vacations.

*Indicates previous mention of project.

**Wildan Mfg. Co.,** Cherryville, N. C., has completed installation of combing equipment. This mill, which is now running full time on both single and ply yarns, formerly operated on carded yarns.

**Manville Jenckes Co.,** Loray Division, Gastonia, N. C., tire fabrics, has closed down for possibly two weeks in order to give its employes the accustomed vacation period. According to an announcement made by J. A. Baugh, general manager, the plants will not be shut down indefinitely, as rumored.

**Diamond Cotton Mills Co., Inc.,** Salisbury, N. C., has completed a new machine room addition, and will place in service at once, using an entire battery of new winders.

**Union-Buffalo Mills Co.,** Fairmont, S. C., is equipping its Fairmont Division with an RX model Breton Minerol process, oil spraying equipment furnished by Borne Scrymser Co., New York. This latest installation places all the Fairmont Division Mills on oil spraying.

**Watts Mills,** Laurens, S. C., have just completed installation of additional cards and combers and overhauling of the carding department.

**Saxon Mills,** Spartanburg, S. C. Effective July 1 night work at the plant will be eliminated, the day and night forces alternating in the abridged weekly schedule of operations, according to John A. Law, president.

**Winnsboro (S. C.) Mills.** An expansion program to involve an expenditure of $200,000 will be carried out during the next nine months by the **U. S. Rubber Co.,** for increasing the capacity of the Winnsboro Mills, which it operates. The tire cord production will be increased 17% by the extension, officials announced.

**Aragon-Baldwin Cotton Mills, Inc.,** Whitmire, S. C., have sold their local plant of electric lighting system to the Southern Public Utilities Co., of Charlotte, N. C., for $20,000.

**Carolina Cotton & Woolen Mills** of Fieldale, Va., have gone on a four-day-a-week schedule for an indefinite period.

**Goodyear Cotton Co.,** St. Hyacinthe, (Que.) Can., owned and controlled by the **Goodyear Tire & Rubber Co. of Canada,** has been enlarged to a 40,000 spindle mill for the production of tire fabric. During the present year a new three-story wing has been added. This building is 408x140 ft. The opening of the new wing was attended by prominent officials of the Goodyear company in Canada and the United States.

## Wool

**American Woolen Co.** is arranging to close its **Brown Mills** at Dover-Foxcroft, Me., on July 10, for an indefinite period. It is the first time in 40 years, it is stated, that the mill has been shut down. The plant has been giving employment to close to 300 operatives.

**Belle Vue Mills,** Clinton, Mass., out of business, have sold their machinery for shipment to New Hampshire.

**Earnsdale Worsted Co.,** Clinton, Mass., owned by the Clinton Trust Co., has turned over its property to a Boston real estate company for sale.

**Channing Smith Textile Corp.,** Cherry Valley, Mass., has shut down two of its plants until July 9. They had been operated on part time the last month.

**New England Woolen Mill,** Clinton, Mass., property on Water St., owned by the Thayer, Bradley Co., Boston, which has been idle for several years, has been sold.

**Talbot Mills,** North Billerica, Mass., are planning to resume operations at their mill on July 7, following a shutdown on June 28, for a vacation for employes. The repair shop continued to work during the period, making necessary repairs and reconditioning of equipment.

**Standish Worsted Co.,** Plymouth, Mass., closed indefinitely June 28.

**Uxbridge (Mass.) Worsted Co., Inc.,** shut down on June 28 until July 7 for vacations and repairs.

**Ohio Carpet Co.,** West Warren, Mass., is to shut down several departments for a month.

**George E. Smith Yarn Mill,** Troy, N. Y., has been leased to the Trojan Products Co. after having been idle for some time.

**Susquehanna Woolen Co., Inc.,** New Cumberland, Pa., wool and cotton mixed blankets, has suspended operations for the first time in 40 years, according to George H. Reiff, president, who attributes the shutdown to late buying by the retail trade.

## Knit

**Englewood Knitting Mills,** Chicago, Ill., have been organized with a capital of $10,500, to operate a local plant. Registered office is at 6643 South Halsted St. The company is headed by Joseph Planer and Samuel M. Ash.

**National Silk Hosiery Mills,** Indianapolis, Ind., will consolidate with the **Trojan Hosiery Mills, Inc.,** effective July 15. The Trojan Mills manufacture 42 and 45 gauge and the National Mills 45 and 48 gauge hosiery. In the consolidation, Henry V. Kobin, now president of the National Silk Hosiery Mills, becomes vice-president of the Trojan Hosiery Mills, according to L. L. Goodman, president of the Trojan organization. The identity of the National Silk Hosiery Mills will be preserved, as the plant will be operated as a subsidiary of the Trojan company.

**Globe Knitting Mills, Inc.,** Boston, Mass., have been chartered with a capital of 5,000 shares of stock, no par value, to take over and operate the **Globe Knitting Co.,** with local mill at 575 Albany

St. David M. Gold, heretofore president of last noted company, will act in the same capacity for the new corporation. Samuel I. Gold is treasurer.

**Morgan Knitting Mills, Inc.,** Newark, N. J., have been ordered to show cause by the Court of Chancery why a receiver should not be appointed. The application has been made on behalf of Hugh T. Morgan, president of the company, and a creditor. Assets are stated as $20,000 and liabilities $40,000.

**Valatie Mills (N. Y.) Corp.** is increasing operations by taking on many additional workers.

**Gotham Silk Hosiery Co.,** Dover, N. J., closed down its local mill on June 20, and plans to reopen on July 7; about 600 employes are affected.

**Empress Knitting Mills,** New York, have leased a floor in the building at 12-14 West 32nd St., for a local mill.

**Electric Knitting Co.,** Cohoes, N. Y., shut down July 26 for the annual two weeks' vacation period.

**Sauquoit (N. Y.) Knitting Co.** is taking on additional workers because of increased business demands.

**Utica (N. Y.) Knitting Co.** has formed a merger with the **Binghamton Underwear Corp.** under which it acquires full ownership of all stock of the Binghamton firm. The merger was approved this week by the directors.

**May Hosiery Mills, Inc.,** Burlington, N. C., are installing a number of full-fashioned machines.

**Bismarck Hosiery Mills, Inc.,** Carthage, N. C., after being idle for many months have resumed operations. New machinery added will enable the mill to make a finished product ready for the trade. It is expected to be running to full capacity by July 15.

**Crescent Knitting Co., Inc.,** Statesville, N. C., manufacturer of women's seamless hosiery, brought its production up from 2,100 dozen pairs of hosiery in April, to 5,000 dozen in May, according to Isadore Wallace, president of the company.

**Jantzen Knitting Mills,** Portland, Ore., are running on a capacity basis and will hold to this schedule, with full working force, for an indefinite period. Shipments for the nine months of fiscal year ending May 31, were 30.2% in excess over the shipments for the corresponding period a year ago.

**J. W. Landenberger & Co.,** Philadelphia, Pa., operating the **Randolph Mills,** Randolph St., have taken title to property on N St., near Kensington Ave., 100x492 ft., heretofore held by the General Baking Co., and have plans under way for a new building on the site, totaling about 60,000 sq.ft. of floor space. Julian S. Simsohn, 933 North Broad St., Philadelphia, is architect and engineer.

**Bear Brand Hosiery Co.,** Beaver Dam, Wis., has begun foundations for its proposed four-story mill addition, 85x99 ft., and has awarded a number of miscellaneous contracts, including reinforcing steel to the American System of Reinforcing, Inc., Milwaukee. General contract was recently let to the Immel Construction Co., 19 West Division St., Fond du Lac, Wis.

*Indicates previous mention of project.

# *Silk*

**Rivoli Silk Hosiery Co.,** Plainfield, N. J., is holding in abeyance the erection of its proposed new additions, consisting of a one-story mill, 52x72 ft., and second-story addition, 52x152 ft., on present building.

**Urdang & Hammer Silk Co.,** Paterson, N. J., is considering improvements in its mill for enlarged output.

**Katterman & Mitchell Co.,** Stanley, N. C., which closed June 20, will remain closed until July 7 in order to give the employes two weeks vacation. This plant has been running on a five-day per week schedule for the last few weeks.

**Zaleschitz Silk Mill,** East Stroudsburg, Pa., have resumed operations after being idle for five weeks.

***Northampton, Pa.** The silk mill formerly owned by **Stemton Silk Co.,** recently bankrupt, has been sold by the Cement National Bank of Northampton to Aaron Aronsky, of Allentown, Pa. Mr. Aronsky expects to form a corporation which will operate the plant in a few weeks with about 100 employes. G. E. Navarre has been named resident manager.

**Lee Park Silk Throwing Co.,** 510 Connell Building, Scranton, Pa., recently formed with a capital of $5,000, to operate a local mill, will be headed by James K. Peck, 1013 Olive, St., Scranton; and Simon Urdang, Oxford and Wyoming Sts., Wilkes-Barre, Pa. Mr. Urdang will be treasurer.

**Liberty Fabrics Corp.** plant, at Union, S. C., was offered for sale the second time, but there were no bidders. In November, 1929, the property was sold at public auction, bringing $2,500, but the courts set this purchase aside, ruling that it was too low. The company, originally capitalized at $250,000, manufactured silk undergarments.

# *Finishing*

**Algonquin Printing Co.,** Fall River, Mass., has shut down this week, resuming operating on July 7. Curtailment has been in effect in various departments for the last few weeks and complete shut down is the first in a long period of years.

**Arnold Dye Works, Inc.,** Paterson, N. J., recently organized with a capital of 1,000 shares of stock, no par value, to operate a local mill, will be headed by Fred Arnold, 243 Hilcrest Road, Ridgewood, N. J. Emil Heer, Paterson, is interested in the new organization.

**Universal Silk Dyers, Ltd.,** Lindsay (Ont.) Can., is the name of a new silk dyeing and finishing company which will establish a modern plant at Lindsay. The secretary-treasurer is A. P. Beal, Lindsay, Ont., while the president is Ellsworth Flavelle, late director of the Robert Simpson Co., of Toronto. In future the **Dickinson Dye Works, Ltd.,** which will be operated by the Universal Silk Dyers, Ltd., will handle only the dyeing and bleaching of worsted, woolen and cotton yarns, rayon and silk skeins, hosiery and ribbons. The Toronto office of Universal Silk Dyers, Ltd., will be located at 884-888 Duffering St.

# *Textile Patents*

BRADING machine. 1,765,117. William Coskey Wright, and John F. Schenck Sr., Lawndale, N. C.

DRAWING mechanism. 1,765,050. Arthur Cecil Butler, Boston, Mass.

DYEING and like machine. 1,763,945. Charles Samuel Bedford, Leeds, England.

FABRIC treating machine. 1,764,089. Walter W. Sibson, and Thomas J. Miller, Philadelphia, Pa. Assigned to Philadelphia Drying Machine Corp., Philadelphia, Pa.

FLYER spinning and like frames. Applying drag to the spinning bobbins in. 1,763,752. Harold Arthur Boyd, Shettleston, near Glasgow, Scotland.

KNITTING needle. 1,764,342. Alexander C. Parlini, Woodside, N. Y. Assigned to Gotham Knitbac Machine Corp., N. Y.

KNITTING needle. 1,764,406. Richard K. Hohmann, Brooklyn, N. Y. Assigned to Gotham Knitbac Machine Corp., N. Y.

LOOM, Circular weaving. 1,765,246. Claude Sery. Aix-en-Provence, France. Assigned to Societe a Responsabilite Limitee "Establissements Rotatiss," Paris, France.

SIDE-slipping movable-plunger weft detector. 1,766,821. Elbridge R. Holmes, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

SILK spinning machines, Flyer for. 1,768,204. John E. Lawton, Coudersport, Pa.

SPINNING frames, Driving cylinder for. 1,766,585. Fredric E. Banfield, Jr., Saco, Me., and Frank O. Hoagland, Bridgeport, Assigned to Saco-Lowell Shops, Boston.

SPINNING machine. 1,768,231. Julius Brenzinger, Fairfield, Conn. Assigned to Max Ams Chemical Engineering Corp., Bridgeport, Conn.

SPINNING solutions of cellulose ethers or esters, Apparatus for. 1,767,215. Melitta Klein, Vienna, Austria. Assigned to Ruth-Aldo Co., New York.

SPINNING solutions of cellulose ethers or esters, Apparatus for. 1,767,216. Melitta Klein, Vienna, Austria. Assigned to Ruth-Aldo Co., New York.

TERRY fabric with piles of different colors. 1,766,805. Walter H. Wakefield, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

THREAD oiler or moistener. 1,766,954. Frederick C. Scholler, Philadelphia, Pa.

WARPING machines and the like, Breakage-indicating mechanism for. 1,765,881. Wilhelm Reiners and Gustav Kahlisch, Munich-Gladbach, Germany. Assigned to W. Schlafhorst & Co., Munich-Gladbach.

WEFT carrier magazine. 1,766,830. Samuel A. Nelson, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

WEFT-replenishing loom. 1,766,895. Albert A. Gordon, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

WEFT-replenishing looms, End-holding means for. 1,766,731. Richard G. Turner, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

WEFT-replenishing looms, Resilent thread holder for. 1,766,851. John F. Tinsley, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

WEFT-replenishing looms, Revoker for. 1,766,909. William H. King, Clinton, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

WEFT-replenishing looms, Thread cutter for. 1,766,761. Samuel A. Nelson, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

WEFT-replenishing looms, Thread holder and tensioner for. 1,766,832. Samuel A. Nelson, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

WEFT-replenishing looms, Thread holder for. 1,766,734. Walter H. Wakefield, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

WEFT-replenishing looms. Thread holder for. 1,766,850. John F. Tinsley, Worcester, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

WEFT-replenishing looms, Thread holder for. 1,766,889. Henry S. Favor, Providence, R. I. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

WEFT-replenishing looms. Yieldable bobbin support for. 1,766,753. William H. King, Clinton, Mass. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

WEFT-replenishing loom thread holders, weight for. Herbert V. Foster, Providence, R. I. Assigned to Crompton & Knowles Loom Works, Worcester, Mass.

YARN changing mechanism. 1,767,480. Walter F. Rolston, Rockford, Ill. Assigned one-half to Burson Knitting Co., Rockford, Ill.

# Questions and Answers

We undertake to answer, free of charge, to the best of our ability, questions pertaining to textile matters received from any regular subscriber to TEXTILE WORLD. We do not undertake, however, routine analysis of yarn or fabric, or investigation involving unusual expense.

Inquiries should give the fullest information and data possible. In the case of damage to material, a sample should be sent. All inquiries must be accompanied by the name of the person inquiring, not for publication, but as evidence of good faith. The identity of those seeking information on technical subjects will not be disclosed.

Letters expressing opinions or voicing criticism are cordially invited. These will be signed by the correspondent's name unless the letter itself contains a request that the name be withheld.—EDITOR.

## Wavy Mark Across Crepe-de-Chine

*Technical Editor:*

*We have been having considerable trouble whenever it is necessary to pick back on crepe-de-chines. We find a very peculiar mark appears when the loom is again started. This mark does not appear at the beginning of the pick back, but is usually about ½ to 1½ in. beyond the point where the weaver started picking back. It is not straight across the cloth parallel with the picks, but is wavy in appearance.*

*We thought it might be the tension, but have tightened up the ropes with the woven cloth as close to the reed as the lay will allow, pulling the cloth up by means of a pick wheel to tighten the tension properly. This mark still shows. Can you suggest any remedy?* (7220)

This mark is not a set mark; it is not a starting mark; and it is not really a pick-back mark, although it is the result of the pick back. To overcome this defect it would be advantageous to make a list of the weavers and the looms giving trouble with such a wavy set. Should one of a weaver's looms show the defect and not another, the trouble can be traced to the loom. However, if but few weavers are troubled with this defect, it would prove advisable to watch the weaver while preparations are being made for picking back.

Such a wavy mark can be traced to four causes. One of these will be found in the tension of the warp; one in faulty take-up mechanism; one in the method used by the weaver in ripping out; and one in the harness.

Supposing the weights on the warp have a smooth, even let-off. The weaver should so set the loom that there will be no need of pulling up the pick wheel afterwards to set the cloth. It is a fact that the woven picks will fall back into the creases made previously by the picks taken out. If the cloth is set tight, the filling will be laid in the original picks, and when coming up to where the weaver started picking back a loose mark will be caused for nearly ½ in. After the loose mark has formed, a tight mark will next weave in, at times forming a wavy appearance.

In the take-up mechanism, see that the friction plate has sufficient give to allow the take-up roll to function properly. If the plate is tight, it will cause similar trouble; if loose, the cloth will slip after a pick-out and allow an uneven appearance.

After a defect is noticed which must be picked out, the weaver should first rip down the center and along the edges to the defect. Next, he should lower the weights to allow loose tension for picking back. The weaver should never let the pick wheel back when the warp tension is loose. If necessary to let it back for additional picking out, he should first raise the weights and let the pick wheel back while the warp is taut. This method will prevent uneven appearance.

It may seem odd that the harness will cause uneven cloth, but this is one cause which is more often overlooked than any other. In ripping out defects, especially for a few inches, the weaver will let back the pick wheel and keep the weights taut at all times, especially on gem-head looms. The harness is forced backwards and, in starting up, moves up a pick at a time, until nearly in regular position, where the harness springs into place suddenly. When this happens, a wavy mark is the result.

We would suggest that you make a perfect set without letting the cloth back to a point which would necessitate pulling up on the pick wheel. If the defect still persists, there is one absolutely sure remedy to overcome it. After making the set and weaving up to the spot at about where the pick-back was started, wet one shed with a solution of water and boric acid. Dampen a piece of cloth with the solution and rub a width of 4 in. entirely across the cloth. None of the solution should come in contact with the woven cloth. Dampen only one side of the shed. Start up the loom before the solution is entirely dry, although the material should merely be damp, and not wet. This is a sure cure for such a wavy mark —often called a "rainbow." The solution of water and boric acid is kept in a bottle by the weaver who is troubled with such defects. It is made of about a teaspoon of boric acid to a half pint of water.

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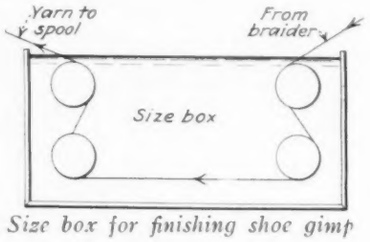
## Finishing Shoe Gimp

*Technical Editor:*

*We have been called upon to make a shoe gimp similar to the enclosed sample. This material is made on a 16-carrier braider. We can braid it satisfactorily, but would like to get some information in regard to the machine used for finishing, also the material used in the finishing.* (7209)

For finishing shoe gimp the following formula should prove satisfactory: for 10 gal. of size use 3 lb. paraffin wax, ¾ lb. beeswax, 5 lb. potato starch, and ½ oz. common salt. If this is found to give too heavy a finish, it can be made up to 15 to 20 gal., using the same amount of materials. For black gimp it is advisable to add 1 oz.




*Size box for finishing shoe gimp*

of black dye to the mixture. The sizing mixture can be applied on a sample machine, such as is illustrated. This consists of a small copper tank placed under each braider. The tank holds about 1 gal. of size and is fitted with wooden rolls. As a rule, it is advisable to dry the thread at a low temperature, and if possible, to do so without the use of a drying machine, having the temperature of the room hot enough to remove the moisture before the thread is wound on tubes.

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**THOUSANDS of inquiries are handled annually by the Technical Editors. In order that as many readers as possible may benefit from this service, we select problems of general interest for publication each week.**

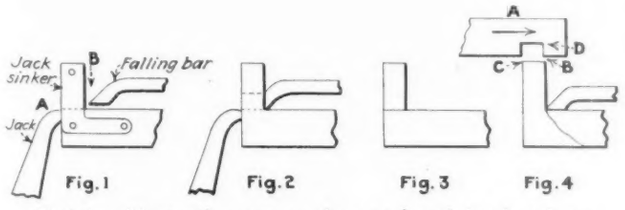
## Excessive Sinker Breakage

*Technical Editor:*

*We are enclosing a number of broken sinkers for your inspection. We are having excessive sinker breakage. These sinkers have been taken from different machines, but the same sort of breakage appears in each. They appear to be badly bruised in the shoulders, but there is no trace of excessive pressure being exerted against them. Plenty of clearance is noted between the sinkers and verge plates. We lubricate freely, as we use gum silk. The catch-bar motion seems to be perfect. We shall appreciate any suggestions that you can give us as to what the cause is, and what precautions we should take to reduce the sinker breakage.* (7212)

Reference to the accompanying sketches will illustrate the cause of excessive sinker breakage with which you are troubled. Fig. 1 shows the jack (which strikes the sinker at point *A*), jack sinker, and falling bar against which the jack drives the sinker. To avoid sinker breakage it is necessary to retain the point of contact on falling bar at *B* as shown. The broken samples show that the point of falling bar at *B* has flattened down until it is similar to the exaggerated shape of Fig. 2. It is easy to see that, whereas in Fig. 1 the blow of the jack is received through a straight line to the falling bar and is solid, the blow in Fig. 2 is against space. The point of contact has flattened down or worn off until it is $\frac{1}{16}$ in. or more above the "blow" line. Because of this, every course results in a destructive blow on the sinker, which eventually breaks the end. The falling bars must be taken off and filed down to shape as in Fig. 1, or new falling bars installed. This explains the breakage of sinkers as shown in Fig. 3.

Breakage of sinkers as shown in Fig. 4 is caused by the catch bar *A*, which is moving as shown by the arrow—its purpose being to move over the sinker at point *B* and at once lower until the head of sinker *C* is in groove *D*; then at the proper time the catch bar moves forward and backward to give the whole body of sinkers the necessary knitting movements and eventually draw the sinkers back to their original position to be driven forward again by the jack. If the cams get out of time or are moved experimentally, the catch bar is allowed to lower itself too soon; the heavy catch bar will then strike the sinker heads at *B* and will cause smashes, mysterious lines in the fabric, etc.




*Sketches illustrating causes of excessive sinker breakage*

After making these adjustments you will for a time find broken sinkers, as those which have already cracked will later break and have to come out. However, by following the suggestion outlined, the cause for excessive breakage will be eliminated and in due time the trouble will end.

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## Paper Pulp or Cotton?

*Technical Editor:*

*We are enclosing a very small piece of ply yarn that is supposed to be spun from paper pulp. It appears to be very short-staple cotton or perhaps it might be all rag (cotton) paper stock pulp. Would you kindly examine this under a microscope and see whether you can identify the fiber?* (7248)

We have examined this under the microscope, and it appears to be all cotton fiber. We are inclined to believe that this yarn was spun from straight cotton fiber. It does not appear to have been put through any beating process as would be used in the manufacture of paper, because the fibers appear too long for beaten paper stock. Although it is difficult to be certain whether or not it has been made from paper, there is not much question but that it is an all-cotton fiber.

◆

## Spot on Full-Fashioned Hosiery

*Technical Editor:*

*We are sending three full-fashioned stockings, one in the gray, and the other two dyed and finished. You will note spots on all of them. We have been able to remove these spots to some extent in the dyehouse, but are at a loss as to how they occur in the gray. Since the silk is moistened to some extent before knitting, we are of the opinion that the spots which appear in the gray may be mildew. We are anxious to find the cause of these spots and the best method to remove them.* (7204)

We have examined the stockings submitted with your inquiry. We find spots from at least three different sources, but none of them seem to be caused by the action of mildew.

The spots on the dyed and finished goods seem to be due largely to oil scum in the dyebath; and we also find a few dye spots apparently caused by floating specks of dye settling down on the dyed goods while they were still

in the wet state. The oil spots on finished goods yielded perfectly to sponging with benzine, only slight rubbing being required to remove the spots. We do not recommend the use of benzine in the removal of such spots, but merely employed it as a test to show solubility of the grease. Such spots can, with proper care, be easily avoided.

Spots on the sample in the gray are probably stains from the cone on which the wet silk has been wound. This may have been a paper cone, but probably was a cloth-covered wooden cone. We tested this sample by boiling out for ten minutes in a 12% sulfonated-oil solution, using no soap at all. Before the ten-minute test had been completed, all trace of the spots had been removed, showing that they were stains from fugitive dyestuff and would easily yield to boiling out.

We are returning various samples showing results of our experiments; and as a matter of cooperation wish to warn you against the use of different lots of silk for making hosiery of the quality represented by the samples. This condition shows up clearly between the foot and leg of the dyed samples, and also shows up in the gray stock of the boiled-out stocking. On the boiled-out stocking we have indicated the starting of a different lot of silk by red pencil mark. These marks also indicate a section of stocking where spots were very pronounced in the original sample. This shows that the spots have been easily and entirely removed, as much of the gum is still left left in the stocking. At the same time, it shows different colors in the raw silk.

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## Cornstarch Undesirable for Loom Belts

*Technical Editor:*

*Why do overseers allow their loomfixers to sprinkle cornstarch on their loom driving belts? This has been the custom in hundreds of cotton-cloth mills for years. If this is of as much value as fixers believe it is, why does the direct-motor-geared loom not give trouble?*

*(7217)*

The use of cornstarch on loom belts is not a general practice, and wherever it is practiced it should be condemned. Cornstarch does improve the clinging power of a belt, but only for a short time. A driving belt suffers by the constant use of cornstarch. It becomes brittle after a time, and this condition increases the slippage. A well-managed weave room is usually well supplied with cans of good belt dressing. Each loomfixer is given a sufficient quantity for many months of application.

All loom belts should receive an application of good belt dressing at least once a week. It is easy to apply, and its constant use will save many dollars for the mill and much extra work for the loomfixer. A driving belt will improve through constant application of belt dressing. Before the dressing is applied, the belt should be run over a piece of fine card clothing, which removes all lint or pieces of foreign matter picked up by the belt during operation.

The manner in which power is applied to a loom is not usually direct. The application of power is made through the medium of a clutch, frequently a cork-insert clutch. The manner in which a loom is operated makes it impractical to apply the power direct from the motor. A loom heavily weighted with harnesses and yarn is not easy for the operator to turn by hand. When a loom is stopped through the breaking of a warp or filling thread, it does not always stop in position suitable for the weaver to draw in or replace the thread. The clutch, located between the motor shaft and main shaft of the loom, makes is possible for the weaver to move the lay of the loom to the correct position by the use of the starting handle, just as an automobile is moved through the medium of a clutch.

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## Rayon Elastic Webbing Off Width

*Technical Editor:*

*In our manufacture of elastic webbing in which rayon is used we are having difficulty in keeping the widths of the rayon uniform. We have no trouble in the winter when our plant is heated; but as soon as the weather becomes damp, our rayon webbing goes off width. I should very much appreciate any suggestions you may have to offer for overcoming this difficulty. (7183)*

Without a doubt humidity does affect rayon, but we suspect you are encountering a difficulty that is not due entirely to atmospheric conditions. It seems to us to be more likely due to improper loom adjustments.

We suggest reeding the material nearer to the finished width; i.e., using the next finer reed (with the same reeding, perhaps) and increasing the amount of weight on the warp beams, particularly the edge warp, to compensate for the narrower reeding. The filling may then need further adjustment. We should also check up on the let-off mechanism to make sure that the beams are not "jumping."

If edge wires are employed, try increasing both the size of the wire and the amount of tension on the filling. Ascertain that the wires are smooth and free from rust. Dampness will cause them to rust very quickly; and rust will cause the wires to bind, thus affecting the width of the material.

We should ascertain if any preparation (wax, oil, etc.) is now being used on the filling yarn. Perhaps a compound that is highly susceptible to humidity or temperature is being used. If no lubrication is now employed, it might be well to experiment with plain cocoanut oil.

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## Streaks in Rayon Crepes

*Technical Editor:*

*We are having considerable trouble in eliminating warp streaks in all-viscose-rayon crepes. The weavers assert that the dyer should be able to dye this material without the warp streaks showing. We enclose herewith a blue sample and would appreciate your advice as how to eliminate these streaks in the dyeing process.*

*(7206)*

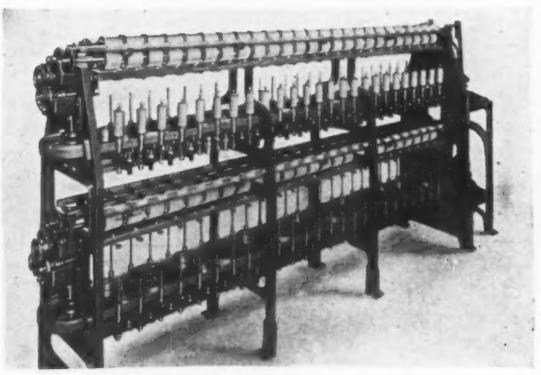
It is our opinion that the warp streaks in the blue sample are due to no fault of the dyer, but are due to variations in the rayon. We do not know of any successful method of treating the goods before dyeing to overcome this trouble of warp streaks. We understand that the deystuff manufacturers are working on this problem, trying to develop dyestuffs that will eliminate this streakiness. Blue shades are usually the worst offenders in showing up any variations in viscose-rayon yarns.

# New Machinery & Processes

## Twister for Silk and Rayon

AN IMPROVED twister for silk and rayon, suitable for grenadine and other twists, has been placed on the market recently by Fletcher Works, Inc., Glenwood Ave., & Second St., Philadelphia, Pa. This model 30 twister embodies a number of innovations designed to give accuracy and uniformity of twist, high spindle speed, economy of power, and low maintenance cost. It is built in both single- and double-deck types. with spindle spacing, traverse, and other details to suit individual conditions. Strong and rigid construction is said to make the twister particularly valuable for operation at high speed with heavy packages.

Among the new features are included individual spindle adjustments for assuring uniform spindle speeds, individual thread guides adjustable in every direction, and durable smooth-running spindles. To prevent oil spatter, the vertical back shaft is equipped with seal-packed ball bearings; and to facilitate changing of twist gears, the gear arrangement has been simplified.



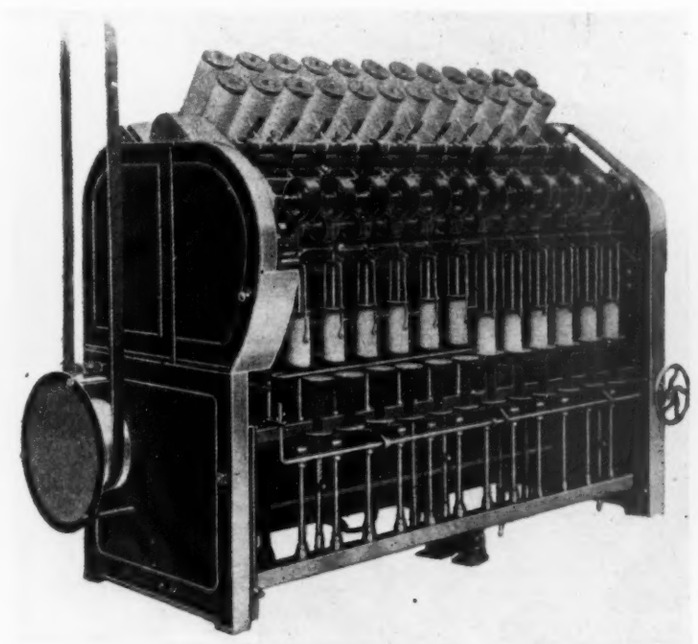
*Twister for silk and rayon*

## Worsted Drawing Machinery

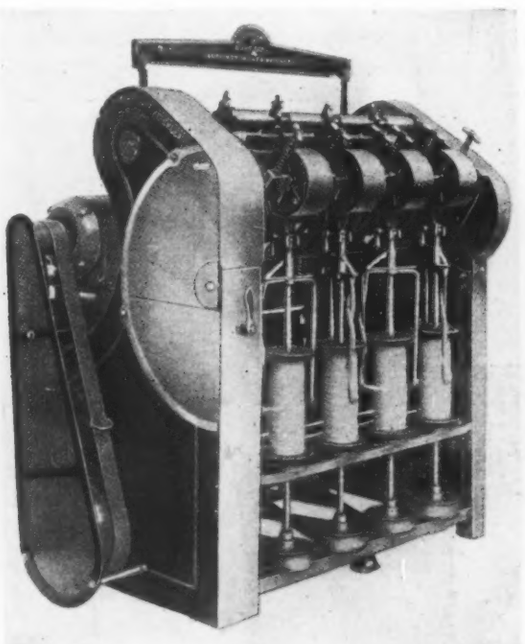
NEW models of worsted drawing boxes, finishers, reducers, and rovers—known as the "Primus" type—are being introduced to the American trade by Prince Smith & Son, Ltd., of England, through its American agent, Atkinson, Haserick & Co., 152 Congress St., Boston. Objects sought in designing these new models were increased production and efficiency, saving of time in gear changing, and greater safety.

On the "Primus" drawing box the frame ends are deep and considerably wider from front to back than on the old machines, affording greater stability. Front rollers are actuated from the driving-pulley shaft by means of roller chain and sprocket wheels through readily accessible change gears to the front-roller gear. In the back-roll drive an improved method of carrying the double stud gear affords true motion. The carriers are actuated from the back rollers at each end of the machine by sliding chains, which are self-adjusting when the ratch is altered.

The spindle drive permits altering the twist without changing the delivery of the front rollers. Change gears are completely enclosed within the frame end. Driving pulleys are close to the frame end; are equipped with an adjustable guard, which permits any angle of belt; and are said to afford true-running of the shaft without whip. The stop motion has been made simple, and the knock-off is accessibly encased in the guard. The safety spindle top, which has already demonstrated its worth, is embodied in the new design. This safety top protects the



*New model of worsted reducer or rover*



*"Primus" drawing box equipped with individual motor drive*

operative and eliminates risk of damage from unobserved laps, it being said to be impossible for any lap to force the hoop out of the guide bracket.

Considerable attention has been given throughout to guarding of the mechanism for increased safety to the operator and machine and for greater accessibility of the parts. Vertical sheet-iron covers behind the machine, for example, reach to the floor and prevent stray bobbins, etc., from touching the pulley shaft. The machine may be driven from the line-shaft or by individual motor.

In the designing of the "Primus" finishers, reducers, and rovers, the metal has been distributed in a manner calculated to provide rigidity without excessive weight. Frame ends are deeper and have a greater area resting on the floor. The frame ends and bearers are tied together at the back of the frame by two strong beams for greater stability and less vibration. Greater efficiency and accessibility are claimed for the change gear, sprocket wheel, and chain-tensioning arrangement on the drive to the front rollers, due to a new method of mounting. The method of carrying the double stud gears on the back roll drive and the special sliding chains in the carrier drive are the same as in the drawing box just described.

The lifter drive embodies the mangle-wheel motion actuated through a chain drive for positive and more satisfactory operation. A slip motion provides safety in case of accident, such as over-running of the roving onto the spindle. The spindle-driving pulleys are close to the frame end; are equipped with a guard adjustable to any angle of belt; and are said to afford true-running of the shaft without whip. An improved stop motion is designed in conjunction with new knock-off apparatus. The direct-pull systems of weighting the top rollers, already successfully employed on the "Primus" spinning frame, has been embodied in the new finishers, reducers, and rovers.

The spindle of the standard model is provided with upper, central, and foot-step bearings. The center bearing is self-lubricating and needs attention only about every two months. The upper bearing is in the form of a half bearing stay, fixed into a continuous rail, and supports the spindle above the flyer, thus restricting vibration and permitting higher spindle speeds to be obtained. The path of the material is not affected; and, when doffing, the spindles simply leave the upper bearings when the rails are swiveled outwards. The upper bearing cannot be knocked out of line, as it is securely attached to the rail. There are no undesirable projections and the whole arrangement is easily cleaned. For users who require especially high spindle speeds and a perfectly running spindle, the patent "Velox" bearing may be used. The "Velox" upper bearings are supported in a continuous rail which is elevated by cams before the spindles are swiveled outwards for doffing purposes.

As in the case of the draw box, special attention has been given to the guards. Likewise provision is made in these machines for driving them from either the line shaft or individual motor. In both cases brackets are machined, and rails, etc., are surface ground.

## Microscope for Shop Inspection Use

SURFACE conditions can readily be inspected with a new shop microscope which has recently been placed on the market by the Bausch & Lomb Optical Co., Rochester, N. Y. The No. 32 shop microscope has been designed for rapid examination and measurement of surface characteristics. It is a small, portable, and rugged instrument adapted for the machine bench or inspection table. It is also particularly well suited for use by salesmen in pointing out minute details of construction or perfections in finish and such other fine points which cannot be seen well by the unaided eye.

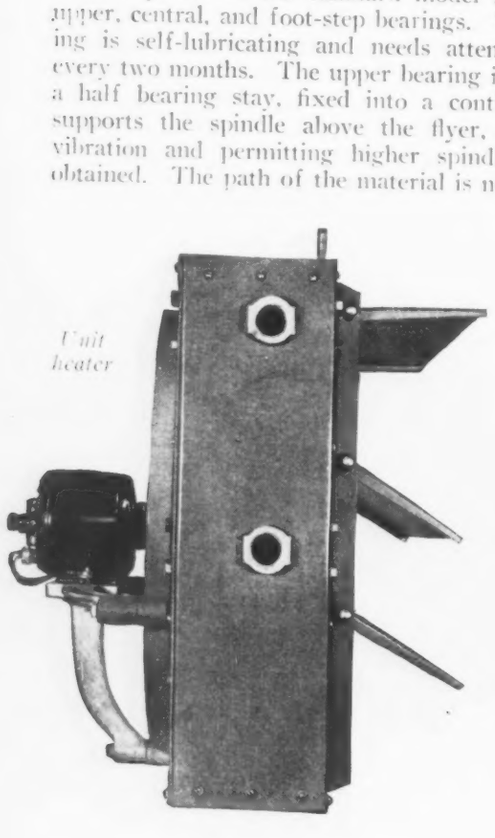
A scale in the eyepiece, calibrated in thousandths, which is 0.1 in. long, enables the operator to measure the crack, flaw, or other characteristic under examination to determine its quality or adherence to precise specifications. With exact measurements of a thousandth of an inch made possible, a quarter of a thousandth is easily estimated. The shop microscope magnifies 40 times and has a field up to $\frac{7}{2}$ in. It is self-illuminating. The instrument is $7\frac{3}{4}$ in. high and weighs only $1\frac{1}{2}$ lb.

## Unit Heater

WOLVERINE unit heaters manufactured by the Wolverine Tube Co., Detroit, Mich., have been announced recently by The Wm. P. Little Co., Stratford, Conn. The heaters are made in various sizes, ranging in capacity from 40,000 to 5,000,000 B.t.u. per hour. They are designed to give long-range transmission and large displacement of air, and are adapted to straight heating, heating and circulating, heating and ventilating, cooling and similar applications. Various models are supplied for heating mills, warehouses, drying rooms, offices, etc.

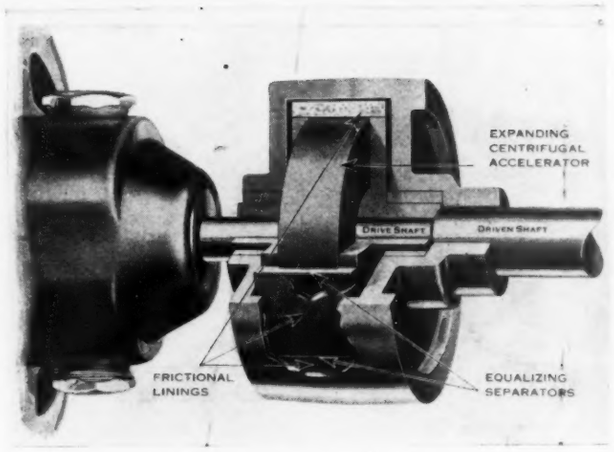
To overcome the disadvantages of multiple joints, the coils are constructed of seamless copper tubing in single pieces running from the inlets to the outlets. The tubing size is said to be so designed in relation to the volume of inlet and outlet, and the number of inlets and outlets so proportioned that condensation does not interfere with distribution; and uniform heat from edge to edge of the unit is therefore assured.

It is also stated that relationship between the fin area and the spacing between the



*Unit heater*

*Shop microscope*




*Automatic starter*

coils is so proportioned that static resistance is reduced to a minimum.

Among the features of the unit are included fins made of a continuous strip of copper, individually adjustable louvers, and frame of rustproof pressed steel. Hartzell propeller-type fans are recommended and are furnished as standard equipment; other makes of fans are optional.

## Leather Belting

LEATHER belting manufactured by a unique method designed to give a uniform and strong adhesion of laps and plies is announced by Graton & Knight Co., Worcester, Mass. Employment of a waterproof cement is said to allow use of the belting in any part of the plant, whether it be wet or dry, without danger of ply or lap separation. It is also stated that the flexibility and high heat crystallization of the cement and the mechanical method of application result in a belting having great durability and high power-transmission efficiency. The "tension cementing" process of manufacture, for which special machinery has been developed, eliminates possibilities of error in belt making due to the human equation, and thus insures uniformity of product.

## Automatic Clutch or Starter

DEVELOPMENT of a starter or clutch for automatically reducing starting loads and for absorbing shocks and vibrations is announced by the Washburn Shops of the Worcester Polytechnic Institute, Worcester, Mass. While this Lombard automatic starter is usually applied to motors, it is suitable for other types of driving units and may also be applied to the driven unit.

The starter can be arranged for direct connection, gear, chain, V-belt, or flat-belt drives. Operation is possible in either a horizontal or vertical position and in either direction of rotation. It is stated that use of the device reduces peak-load requirements for driving units, improves the power factor, absorbs shocks, and lessens wear and tear on both driving and driven units.

In place of balls, weights, cams, and levers for obtaining pressure, an expanding centrifugal accelerator containing a fluid automatically gives the necessary pressure. The fluid is usually mercury for the smaller sizes and water for the larger sizes. There can be no leakage of the fluid as the accelerator is permanently sealed. When the starter is at rest, the fluid is in the lower part of the accelerator. The fluid requires an interval of time before it becomes distributed uniformly around the inside of the accelerator. Until this distribution takes place, there is no effective pressure. It is this condition which allows the motor to attain full speed at once.

The accelerator is keyed to the motor shaft. The gradual building up of the pressure exerted by the fluid obtains a smooth pick-up for the driven side. The pick-up interval may be fixed to suit given conditions. The accelerator is wholly enclosed. When once installed, it requires no adjustment during its entire life. The frictional linings protect the accelerator.

*Room cooler*

## Room Cooler

ROOM coolers, having a capacity sufficient to care for rooms having a floor area of 300 sq.ft., have been placed on the market recently by Frigidaire Corp., Dayton, Ohio. The cooler is designed to maintain a constant room temperature and is thermostatically controlled. It may be operated by either a water- or air-cooled compressor. A four-blade fan, propelled by a 1/20-hp., 110-volt, single-phase motor, provides circulation of air. The cabinet is less than 4 ft. in height and occupies a floor space somewhat under 2 ft. square; it is finished in ingrained mahogany Duco, and is equipped with louvered air deflectors.

## Satin Finish on Monel Metal

A NEW monel metal finish, designated as No. 8, has been developed by the Huntington Mill of the International Nickel Co., 67 Wall St., New York, to replace those finishes formerly known as No. 3 and No. 4. The new finish has a silver-satin appearance with more luster than those which it replaces, but without the high reflectivity of No. 5 finish. It was developed to eliminate the need on the part of manufacturers for further polishing of their products after equipment has been completed. It is stated that the satin surface allows the original finish to be maintained more easily than those finishes having mirror-like luster.

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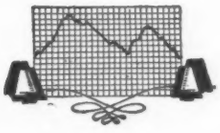
# TEXTILE WORLD ANALYST



# *Erect-Pile Fabrics to Lead Fall Fashions*

## Brilliant, Pure Colors, Black, White, and Brown, Will Score Successes of Fall and Winter Seasons

ERECT-PILE yarn-dyed Lyons silk velvets which, it was predicted in "TEXTILE WORLD Analyst" of March 20 last, would see a revival, have been advanced to the front rank of fashion in both Paris and New York.

Yarn-dyed velvets hold first place in the style, although all pile weaves have gained ground, since an erect pile reflects the new, soft, rich, glowing tones. Similar effects may be developed in high-pile, piece-dyed, rayon velvets. Erect-pile velvets in many varieties will be accepted, especially *velour du nord* for coatings. Transparent velvets will be staples for volume selling.

The new fall and winter colors emphasize the three primary pigments, blue, red, and yellow, plus the three rich secondaries, green, orange, and violet, for the new yarn-dyed velvets. Black will also be very good.

The three primaries and the three secondaries are also transposed into pastels by the addition of white, thus providing twelve major colors. In combinations, monotones are preferred to contrasts. For example, light and dark shades of the same colors will be used together.

Browns deepening from beiges through tans to African brown head the few broken colors, to which may be added very dark green-blues, blue-greens and mauve-browns. Turquoise is a novelty combining color.

### WOOL VELVETS

Bestowal of favor on erect pile velvets will expand the demand for wool velvets, suedes, and closely sheared, erect-pile woolen coatings carrying a soft bloom finish instead of a luster. The foregoing speaks for fashion. Broadcloths, so called, creped broadcloths, and tricot broadcloths are for volume selling in fur-trimmed coats priced below $50.

### FALL AND WINTER FABRICS

**Velvets lead silks, and suede cloths lead coatings, for high style. Plain clear colors predominate in silks, but jacquards are popular in all weights and materials; also printed patterns over jacquard weaves. Double-warp chiffons, crepe de chine, heavy weight georgette, canton crepe, and canton faille will provide staple silks. Among woolen dress goods, crepe weaves with small quiet designs will be popular.**

**British and Continental style centers are introducing more color in men's wear. American style leaders are slow to accept this trend but will eventually do so.**

•

This instalment of the Analyst has been prepared especially for TEXTILE WORLD by Eugene Franklin Peirce, Color and Fabric Editor of the *Dry Goods Economist*. Once each quarter the Analyst appears in the form of a style forecast of fabrics. All other weekly issues will continue to consist of analysis and forecast of conditions in the textile industry, prepared, as hitherto, by Dr. Lewis H. Haney, Director of New York University Business Research Bureau.

With few exceptions France is promoting fabrics and novelties that cannot be profitably made elsewhere. Metals are one example. Each year they become lighter in weight and softer in construction for general distribution. This is true, also, of most other women's wear fabrics.

All statements concerning fashions must be by a system of balances, since there are zephyr and feather weights, sheers, heavy sheers, like georgettes, soft weaves, stiff weaves like poult-de-soie, and silk-and-wools for tailor-made dresses and coat dresses. Proportionally speaking, soft, sheer, light weight weaves bulk large in sales, while stiff weaves are limited principally to novelties.

During periods of reaction from extremes, restraint obtains a footing. This is shown at present in the popularity of fancy weaves in solid colors. Jacquards typify the revival of an old favorite whose beauty originates in the weave itself. Brocades are now applied to sheer, semi-sheer, opaque, and heavy weaves. Occasionally in novelties a motif printed in colors is added to the jacquard. Embroideries also are in good form, especially for sheer weaves and for blouse waists.

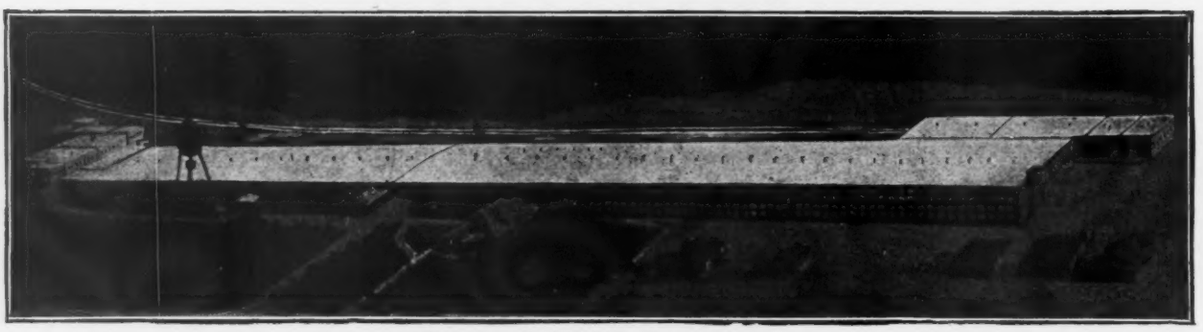
Finally, speaking from a standpoint of fashions in fabrics, lace flouncings in black, white, and colors, together with narrow laces for trimming purposes, are important.

### SILKS FOR FALL AND WINTER

Chiffons in plain colors are important when woven with double warps and having a self-colored motif on a self-colored ground.

Crepe de chine and georgette crepe are staples in New York and Paris; so also are heavy georgettes, which are especially good for developing long folds in skirts showing the Greek influence; Roman crepes are also appropriate weaves. Cantons and Canton failles (made with a species of rib in the filling) are volume sellers; in black and in street colors they are used for dresses, suits, ensembles or coats, and in pastels or novelty colors are appropriate for formal wear.

High-luster bridal satins are often chosen as a substitute for panne velvet; they have the advantage of the luster of panne velvet at a more reasonable price. Novelty satins have been developed by the addition of metallic disks on either white or colored grounds.



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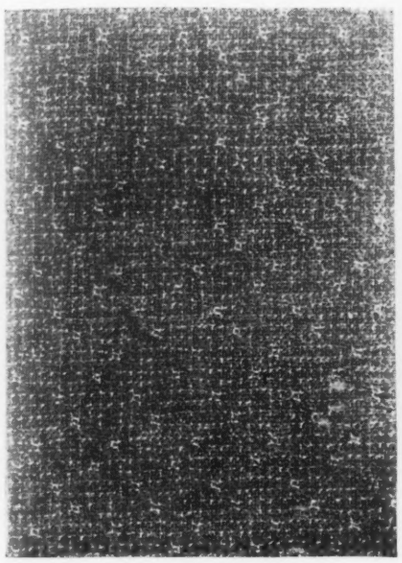
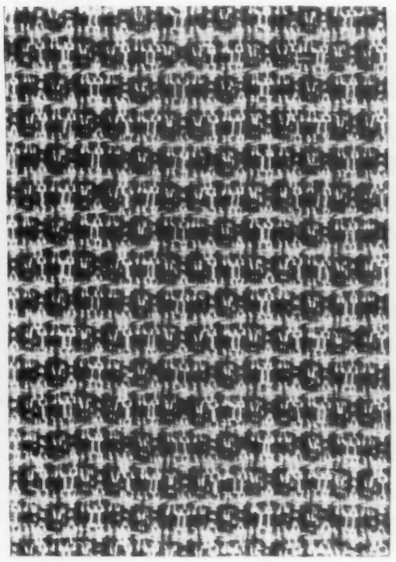
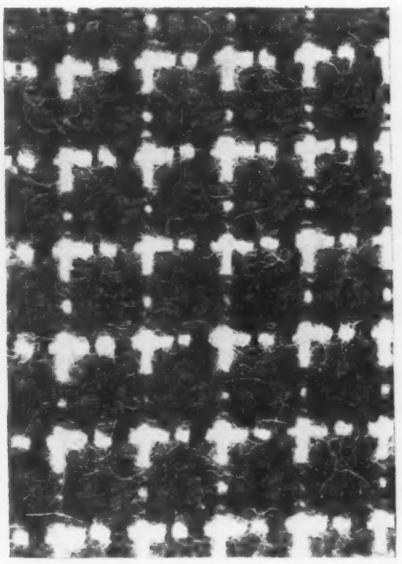


*Lightweight dress goods "faccone," with fine rayon check, from Pacific Mills*



*Simplified treatment of pinhead checks with rayon decorations, from Botany Worsted Mills*



*Interpretation of Rodier's new checked Scotch suiting and coating, from Botany Worsted Mills*

Black satins look promising for wear at informal social functions.

Constructions of silk and wool now appear for dresses, suits, ensembles and coats.

### Woolen Dress Goods

Collections of woolen dress goods include sheer flat weaves, heavier, round-thread, open constructions, adaptations from homespuns, and lace effects. Crepe weaves are added in great variety, since crepe yarns are widely used in silks, woolens, worsteds, and coatings. Miniature checks, disappearing stripes, flake effects of white on color, taffeta weaves in end-and-end treatment, mixtures, thin Scotch effects, nub-yarn fancies, hair lines, two-toned flaccons, and miniature tweeds in endless variety are shown in dress, ensemble, and suiting weights in a large number of distinct patterns and weaves. Dots are omnipresent.

### Men's Wear

In the market for men's wear the newest development is a slight increase in the use of color, which appears principally in blues, both solids and mixtures, with white kept down to conservative proportions. Manufacturers of fine woolens in England are introducing new fancy weaves in solid colors, of which navies are confidently offered by custom tailors. They are also introducing Glen checks in conservative shades of blue, and the same color combination is offered in unobtrusive stripes. Glens can be developed in subdued shades of blue, tan to brown mixtures, and in sober grays.

The trend toward a trifle more color in men's apparel is also emphasized in cravattings now being promoted in all foreign centers where successful styles originate which will be adopted by American manufacturers of neckwear for the oncoming fall and winter seasons. Styles in cravattings ultimately influence fashions in men's wear. It seems likely that these tendencies will appear in American collections of woolens and worsteds in the spring of 1931, especially for sale in shops where new styles are introduced.

Nevertheless, men of leisure who buy clothing and furnishings in shops conducted on streets frequented by the leisure class still prefer plain colors in clothing, and show indifference to any change in accessories. This attitude is expected to retard the introduction of any pronounced change during the fall and winter buying seasons of this year in shops catering for the trade of the exclusives.

Clothiers, too, noting the popularity of the derby hat and velvet collars, and the forced sales of men's wear by specialty shops, are adverse to anticipating their fall and winter requirements until later on in the year, when the consensus of opinion regarding styles will be more clearly outlined.

### Price Revisions

From a round of the retail clothing establishments catering for the patronage of the masses, it was learned that there was a general downward price revision of from $10 to $15 per suit from quotations formerly ruling. This change will be permanent, it is said.

Expressions were general that extras, such as lightweight fancy overcoatings and novelty raincoats, would be less in evidence than a year ago. Coupled with the foregoing, the belief was general that what is known among clothiers as "ice cream clothing" would no longer be in evidence for the coming spring season. Practical styles in suits, overcoatings, and furnishings are indicated.

A closer view of the cloth market for immediate selling discloses an unusually late season, since bulk sales by mill agents are yet to be made. In the meantime, clothiers are closely studying price and style tendencies and judging the future with respect to the possible demand.

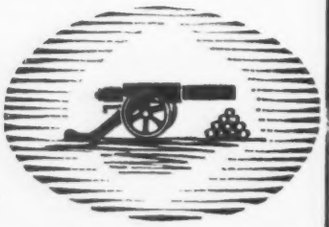
Looking further afield to the spring season of next year, clothiers having the broadest view of conditions expressed the opinion that in colors grays, blue-grays, tans, soft browns, and a long range of blues are indicated for wide recognition next year. From a close-up view of blues it is clear that they will be outstanding in men's wear and in garments for women and that blues will be the pivotal color in men's cravattings for the spring season of next year.

# The Textile Trend

**Cotton Textile Markets:** Cotton goods sales showed stimulation late last week under extremely low prices. Print-cloth prices on certain constructions declined to a point that has not been touched since 1916, when cotton was 2c. per lb. lower than at present. These extreme lows did not last more than a brief time, and later buyers were paying ⅛ to ¼c. advance. Several of the large sellers report that they did not take any of this low-priced business. Bids calling for deliveries late 1930 or early 1931 were declined.

### Wool Textile Markets

Notwithstanding slower sales in the short pre-holiday week, mills feel that



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## *New!*

**These vitally different yarns are scoring a pronounced success. The products of our Amazon Mills, they are utterly *unlike* any other yarns on the market.**

**If you have seen Amafleece, you have remarked their lofty, fleecy softness. They are available in 125 bright new colors—solids and combinations, fast to light and washing. Numbers range from 8s to 30s single and ply.**

**Amaray is the same yarn twisted with rayon. It makes up into knit fabrics as smart as to-morrow.**

**These yarns must be seen to give you an idea of their possibilities in *your* goods. May we show you samples?**

## CANNON MILLS
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*Sales Agents for*
EWING-THOMAS CORP.
Mercerized Yarns and Thrown Silk
AMERICAN ENKA RAYON
IMPORTED DUTCH ENKA RAYON
for the Southern States

# CANNON YARNS

an improvement may be expected in July. This is based mainly on the fact that New York retailers have not covered clothing commitments. July 15 is considered the latest date such orders can be placed with the mill to insure delivery of clothing during August. Trading down tendency of many clothing manufacturers has resulted in fair business for popular-priced sellers at the expense of the better- and medium-grade fabric manufacturers. Worsted yarns less active, but prices are steady.

### Knit Goods Markets

Hosiery market sentiment at grenadine full-fashioned end is stronger, but half-hose continues weak, with buying lighter. Mills specializing in women's goods receive numerous inquiries for fall, and jobbers are more confident. Bathing-suit demand is strong, and season probably will be several weeks longer than usual; some mills have orders carrying them through July. Rayon polos in active demand. Sweaters have improved slightly. Knitted lightweight underwear moves steadily, and some mills are behind in shipments; cotton athletic shirts and shorts moving well in 50c. range. Sales of lightweight behind last season at this time. Heavyweights continue slow.

### Silk Textile Markets

Raw silk drops below $3.00 mark, and trade is decidedly pessimistic regarding outlook. There is practically no straight buying being done; all turnover is on bargain basis, and even there interest is light. Thrown silk is also weak, due partly to short holiday week and partly to raw silk softness. Mills reported producing only 40% of capacity; stocks on hand small. Spun-silk demand lighter, but market is firm; moderate fall business being placed. Broadsilk mills complain movement of fall lines is backward; both cutters and retailers are hesitant about commitments. Current buying stresses plain and printed canton crepes. Orders are all of the "feeler" type, the consuming trade being doubtful about the fall outlook.

# Thin Market for Textile Shares

## *Farr Alpaca and Collins & Aikman Make Encouraging Showing*

THE textile share market covering both wool and cotton issues continues very quiet with prices easy to soft, except in a few selected issues, because of lack of substantial buying power under the market. Anything that has to be sold is taken only at a bargain price by the buyer and it often happens that under such conditions good stocks sell at the auctions well below their intrinsic value.

In the New Bedford and Fall River markets there is an almost complete absence of buying demand which makes liquidation impossible except at sacrifices in most cases. In Fall River cotton mill shares Berkshire and Pepperell were the most active, the latter on a wide price range of 85½ to 89. Berkshire common was dealt in on a range of 14¾ to 16¼, the preferred at from 68 to 70. In the New Bedford market Nashawena and Wamsutta were more active with a downward slant. A group of leading New Bedford mill shares at an average price of 32.14 were off 1.10 for the week and 3.62 lower than a month ago. Average price of a number of leading Fall River shares was off .48 for the week and 1.40 for the month.

American Woolen shares were firm throughout the week, the preferred price not going below 31 on the Boston Exchange. Pacific Mills recovered a point to 31. Amoskeag sold in small lots at 12 while 102 shares of Bigelow-Sanford sold at 55, the low of the year on the Boston Exchange.

Merger plans seem in abeyance. It is thought in some quarters that banking interests have been waiting the outcome of the investigation of the Wool Institute activities before going ahead. Announcement of a United States District Court decree adjudging certain activities of the Wool Institute to be illegal and in violation of the Sherman anti-trust law is looked upon in the cotton industry as particularly important in that it indicates just what must be avoided in the efforts of cotton manufacturing leaders to bring about some measure of cooperation between the various mill organizations, in the hope of ending the price demoralization that has upset the entire industry. Practices particularly mentioned in the decree against the Wool Institute have been studiously avoided by the Cotton-Textile Institute.

### Farr Alpaca in Strong Position

Stockholders at a special meeting of Farr Alpaca Co. voted against proposal to authorize retirement of 4,000 shares of stock now held in the treasury. The company reported for the year ended May 31, 1930, net income after all charges, including depreciation and federal taxes, of $822,764 equivalent to $5.71 a share on 144,000 shares. This compares with net after similar charges in the preceding fiscal year of $678,840, or $4.71 a share. Balance sheet as of May 31, 1930, shows total assets of $19,565,646; current assets totaled $7,415,563 and current liabilities $392,717, leaving working capital of $7,022,846.

Treasurer F. H. Metcalf stated in part: "The beginning of our second half year (Dec. 1, 1929) very nearly coincided with the stock market panic and immediately our sales declined. Up to the present time they have shown but little recovery. This, together, with the drastic drop in wool prices, coupled with inability to purchase wool in any quantity at the market quotations, and a serious fire in our wool warehouses made the second half year anything but happy. In recent years our real estate and machinery have been carried at the round figure of $8,000,000. This year we carry this item at cost ($13,618,635) against which has been charged adequate depreciation ($5,160,422) and a further depreciation of $858,291 for obsolescence (net figure $7,599,922). Our inventory was taken at cost or market, whichever was lower, and depreciated 30%. Against this shrinkage was charged inventory loss of $211,397 caused by the sudden drop in wool values. During the year our looms ran about 40% full. This deficiency in goods was partly made up by sales of cotton and worsted yarn."

### Collins & Aikman

Report of Collins & Aikman Corp. and subsidiaries for quarter ended May 31, 1930, shows net profit of $759,081 after interest, depreciation, taxes and reserve for contingencies, equivalent after 7% preferred dividend requirements to $1.01 a share on 587,633 no par shares of common stock. This compares with $329,416, or 24c. a share on 591,833 shares of common in first quarter of 1929. The company acquired 4,200 shares of its common stock in the open market which item appeared in the balance sheet as of March 1, 1930, at cost of $67,937. Net income for May 31 quarter this year represents a record first quarter and an increase of 130% over 1929.

Collins & Aikman Corp. is having one of its best years in the production and sale of fabrics used in automotive upholstery. Sales from Jan. 1 to June 1 in the automotive fabrics were 14% above sales for the same period in 1929, and 22% above sales for the same period in 1928. Sales, including the automobile and furniture upholstery groups, the drapery groups and the new Collins & Aikman carpet line, are such that the company's mills in Philadelphia, Roxboro, N. C., and Bristol, R. I., are running night and day shifts.

Management of Lancaster Mills, Clinton, Mass., announced that on July 1 remainder of $1,500,000 notes of the corporation held by Amory, Browne & Co., then coming due, would be retired. Already all but $475,000 of notes have been paid, $600,000 within the past month. It was notice of Amory, Browne & Co. given the corporation last January that it did not want to renew notes July 1 that forced liquidation of the company's affairs. An auction sale

# In AMAZING AMERICA

the clerk and the millionaire mingle as equals in the world of dress.

The master designer who creates distinctive designs in ready-to-wear clothing places within the reach of every man that distinction usually found only in the most expensive of clothing.

And Ram's Head Fabrics offer values in cloth that place high-grade fabrics, too, within the reach of every purse.

"STYLES THAT SET THE STYLE"

American Woolen Company

*Executive Offices, Boston, Mass.*

Selling Agency—American Woolen Company of New York
Dept. H, 225 Fourth Ave., New York City

# RAM'S HEAD FABRICS

the first week in August will be held to dispose of last of the machinery, other equipment and stock, not sold at private sale since the middle of April.

Dominion Textile Co., Ltd., Montreal, Canada, reports for the year ended March 31, 1930 gross sales of $19,349,973, against $21,262,400 in the preceding year. Manufacturing profit was $1,518,321 against $1,652,562. Income from investments and profit on sale of securities were $561,610 against $324,105, making total income $2,079,931 before interest, rentals, etc., against $1,976,667. President Daniels said during the past year conditions in the cotton industry "continued unsatisfactory" and since last October sales were in steadily decreasing volume.

Directors of the Pilgrim Mill, New Bedford, Mass., understood to be one unit to be combined into the Bancamerica-Blair Corp.'s proposed consolidation of fine cotton goods mills, have halved the dividend of $1 a share, payable to stockholders of record June 30. Dividends of $2 a share quarterly have been paid on the stock since the beginning of 1926, and in 1927 a special payment of $12 was distributed.

### Scant Change in South

Charlotte, N. C.—A decline of 16c. a share was recorded in the weekly average of 25 common stocks of southern textile mills according to the summary for the week ended June 28 as prepared by R. S. Dickson & Co. of Charlotte, N. C. The closing price for the week stood at 74.72. A number of mills have within the last few days declared cash dividends for the semi-annual period. A few southern mills will pay only one-half of the usual semi-annual dividends while a number will distribute the regular amounts.

### Boston Stock Auctions

The following sales of textile shares were sold at Wednesday's auctions:

| Shrs | Mill | Par | Price |
|---|---|---|---|
| 25 | Associated Textile | ... | 36½ |
| 22 | Everett | 100 | ¾ |
| 20 | Pepperell | 100 | 85½ |
| 100 | York | 100 | 8½ |
| 18 | Berkshire, com | ... | 15¼ |
| 224 | Naumkeag | 100 | 84–88 |
| 409 | Total | | |

## Boston Wool Receipts

Receipts of domestic and foreign wools at Boston, also imports at Philadelphia and New York for the week ended June 28, based upon data compiled by the Market News Service of Bureau of Agricultural Economics, Department of Agriculture, are as follows:

| | | | |
|---|---|---|---|
| Domestic | 20,100,000 | 99,195,000 | 65,500,000 |
| Foreign | 686,000 | 42,216,000 | 68,156,000 |
| Total | 20,786,000 | 141,411,000 | 123,656,000 |
| IMPORTS AT PRINCIPAL PORTS | | | |
| Boston | 686,000 | 42,216,000 | 68,156,000 |
| Philadelphia | 448,000 | 29,351,000 | 42,325,000 |
| New York | ... | 26,879,000 | 40,736,000 |
| Total | 1,134,000 | 98,446,000 | 151,217,000 |

# Cotton Yarns Near Former Lows

### *Quotations Are Approaching the Ten-Year Low Mark*

Philadelphia.

ALTHOUGH demand is small there are spots where activity is discernible. One of the largest selling organizations states June was the most active June they have experienced for five years, and yet this should not be taken to mean the market has been really, active even for them. There are more manufacturers who believe that prices if not at bottom are so near to it that they can afford to buy ahead with safety.

Several other houses are booking enough orders of this type, which benefit the spinner because to take the business most of them make a stipulation that part of it must be accepted promptly by the manufacturer. Several braiders and insulators have bought ahead following this policy and one house reports receipt of business that will run until next December.

Buying ahead is not general in other lines and caution throughout the trades is apparent. Volume of sales tends to contract rather than the reverse, and, as sales diminish, spinners' margins have been decreasing until at present they are smaller than most veterans in the selling trade here can remember. Based upon prices of cotton and selling-prices of yarn, spinners are selling on the basis of cotton 2c. under the lowest point so far reached.

Manufacturers who are buying at this time are buying "bargains" based on present prices of cotton, and should cotton stay around its present level, they will have bargains when time for delivery is at hand. Spinners' margins are at their narrowest limits and in addition to this prices of cotton are approaching the low limits quoted during the last ten years. For this reason many are beginning to wonder whether the bottom has not been struck. If it has not, there are few who are predicting that important recessions are yet to occur.

### Yarns Cheaper Than Cotton

In 1921 cotton was close to 10c., and in 1926 and 1927 low points slightly above that figure were touched; with these two low points as marks for the last ten years, it can be seen that cotton does not have to go much further to equal this long record. The same applies to yarns and with 20s-2 warps selling this week at 25c.; the low point for this count for almost ten years was touched with the one exception of 1921 when this price was bettered to a small extent.

### Stocks Are Not Large

In addition to cotton and yarn selling at almost record low prices for nine or ten years, we have the fact manufacturers have this time refused to accumulate large stocks in their inventory, and, although spinners and dealers may be carrying large stocks, the manufacturer is liquid in this respect and any improvement in demand for goods would be quickly felt by the dealer and spinner. This is a bright aspect to the current situation that is frequently lost sight of, being different from past periods of a similar nature.

Actually few buyers are acting on these premises and spinners are in such need of prompt delivery orders that they are willing to accept prices considerably under the nominal price level. There have been fair sized sales of the speculative counts, 20s-2 and 30s-2 warps and skeins, at prices 1c. and 2c. under the figure named by spinners, one manufacturer taking 1,000 warps of 30s-2 at a reported price of 29½c.

A similar condition is found in carded knitting yarns, knitters being willing to take delivery on old contracts at a fair rate, but placing little new unless spinners are willing to sell on the basis of 23c. for 10s. There has been business taken at that figure, but majority ask 23½c. as their minimum. Demand from knitters is less active than two weeks ago when improvement in specifications was noticeable.

●

Boston. — The cotton yarn market showed more activity in the Boston district as the month came to an end, but the first half of this year is considered unsatisfactory both as to volume and profit. The market on the whole differed little basically from previous weeks. There was, however, more of a forward look on the supposition that the disturbing and distressing conditions of the first half of the year are unlikely to be repeated in the second half of the year. Some specifications arriving on long standing contracts were of assistance, and the continued curtailment is regarded as laying the basis for a good market in the early fall.

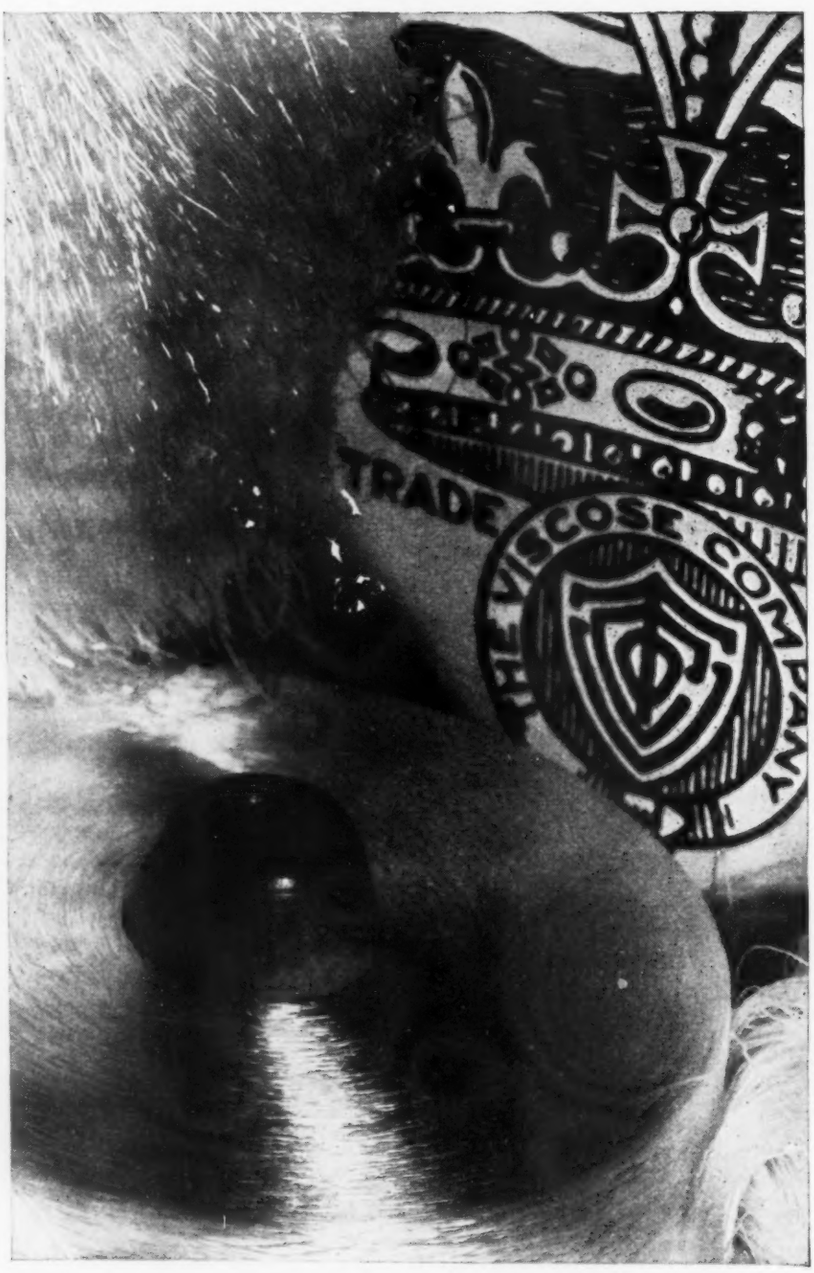
Some large buyers have intimated that they are about ready to place good size business for yarns required. The downward tendency in raw cotton has weakened yarn prices resulting in some exceptionally low prices being made by spinners in need of business. Some dealers predict brisk business starting within the next four to eight weeks, and with the placing of orders for yarn, urgent demands for delivery will follow.

Inquiries for yarn have been more numerous and the quantities inquired for have been more desirable to spin-

***To tell you what you want to know*** **about rayon yarns and their more profitable use. This is No. 2 of the series. Reprints of No. 1 furnished free on request.**

# "DOUBLE-BLENDED" FOR A SINGLE PURPOSE —TO MAKE A BETTER RAYON YARN

WE START at the very beginning to make Crown Brand a better rayon yarn — to give it greater strength, richer texture and smoother workability. We even control our own pulp production in a special plant with special corps of engineers. And all the way through we use the double-blend method. ✟ The pulp, for instance, is double-blended. The pulp-base of Crown Brand Rayon Yarns is a scientific compound of two basic materials. The required amount of each material is first built up by selecting small amounts from several sources of supply. The mixture of these small amounts forms the primary blend, and the compounding of two primary blends forms the double-blend and gives us the perfect pulp-base. ✟ Such painstaking procedure, of course, results in absolute uniformity of every ingredient, and the superior strength and elasticity of Crown Brand Rayon Yarns may be traced straight back to this double-blend precision. ✟ The big point in our service is to help you find the perfect yarn for your specific purpose and deliver it to you in the form best suited to its economical use. Write here to headquarters freely on any problem in connection with rayon goods manufacture.




**THE VISCOSE COMPANY**
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ners. Large buyers apparently feel that prices are more favorable and that they can cover for a more liberal portion of their needs than has been the case for some time. Stock yarns in customer's hands are at a minimum while spinners are doing everything possible to avoid accumulating yarns under existing conditions.

●

NEW YORK.—Cotton yarn trading drags along without much change. The call is very limited, prices are low and customers are purchasing in small quantities. Little activity is expected this week, due partially to the fact that many are taking inventory. Ordinarily, greater demand might be looked for after this factor has been disposed of. Dealers say, however, that they cannot foresee a resumption of buying until customers receive new business for their products.

Prices remain nominal with sharp trading necessary to get orders. An instance was cited of a good grade of carpet yarn the price of which was finally shaved down to 18¾c. This business was finally reported to be placed at 18c. The point was stressed that this was a good grade of yarn, not one containing a quantity of waste stock.

Spinners in many instances are very firm in price, and not meeting the present market levels. They are not securing orders, but probably find it cheaper to shut down rather than to accept current offers. Many carded spinners are running on heavily curtailed schedules with the hope of keeping a skeleton organization in shape to take advantage of any demand that might crop up.

●

CHATTANOOGA, TENN.—New weakness has developed here in the mercerized yarn market and as a result prices have been reduced another 2c. On June 30, quotations on two-ply mercerized stood at 78c. for 60s; 20s were being offered at 57c. and 80s at $1.05.

Prices remained at about the former levels in the combed and carded fields. Quotations on combed single range from 27 to 28c. for 10s to 29½ to 30c. for 20s. Combed singles are offered at prices from about 40c. for 18s to 75c. for 70s.

# Worsted Yarns Are Quiet

## *Prices Hold Fairly Well For a Dull Market*

PHILADELPHIA.

YARNS are dull but prices are holding well except in isolated instances where spinners have accepted substantial reductions in order to book large contracts for nearby delivery. In one case of this type the spinner sold 150,000 lb. for about 10c. under the accepted price level. Spinners talk of advances in medium grade yarns instead of lower prices and indications are that the current price range will hold even though demand continues quiet for several weeks.

It is between seasons for both knitting and weaving counts although there are indications that interest displayed by dress goods manufacturers will shortly expand. Men's wear manufacturers, who have been working day and night to keep up with rush delivery orders they booked at the end of the season, have filled or are now completing these orders, and, as a result, these mills will not be consuming the large volume of yarn which they have been using during the last month.

Another larger consuming trade is at end of a season—bathing-suit mills have completed rush orders for the 1930 season. Spinners of single yarns for this trade were enjoying healthy trading with them during recent weeks, but this is at an end for the time being. Manufacturers, having completed the prompt shipments orders for the season, now are turning their attention to sweaters; or, if they are manufacturers exclusively of bathing-suits, they will not begin work on 1931 garments for several weeks yet.

These two outlets have been factors in bringing deliveries from spinners to a respectable height during an otherwise dull market, and their loss will be felt unless there are others to take their place. One hopeful sign in this direction is larger interest displayed by sweater coat manufacturers, spinners reporting better demand from them than has been seen for several weeks.

### MEN'S WEAR RUSH OVER

In weaving yarns spinners do not look for a substantial increase in volume for the next few weeks from men's wear manufacturers. It will be necessary for them to wind up loose ends of the current season; and then sampling for their next season is anticipated before they will place large contracts, although several, finding good demand for fabrics at end of this season, placed contracts with mixture spinners that run into the next season.

Before the new men's wear season gets under way indications are that dress goods manufacturers will be buying larger quantities of 2-50s, 2-60s, 2-70s, with fine filling counts to go with these numbers. Dress goods manufacturers believe the new and lighter weight worsted lines will be in larger demand than during their recent seasons.

Aside from slight improvement in sweater demand, yarns for outwear have been less active during the last ten days than for several weeks, and much of the blame for this is given to the holiday period this week, a number of manufacturers stating they would place no further orders until after July 4. Spinners of these counts state although English wool markets are easier, domestic markets for medium grades are strong and higher. This means they are unable to buy wool and sell 2-20s, 50s at $1.07½ with profit. Because of these conditions, there are reports in trade that it will not be long before $1.10 level is made effective with other counts in proportion.

Weaving yarn spinners in both English and French spun groups are firm in quoting for new business and few are inclined to bargain unless the quantity involved is large enough.

# ◆Fair Future Call For Spun Silk

DEMAND for spun silk continues to slacken, but confidence in futures is holding the market firm. Spinners and manufacturers both are confident regarding the coming season. Broadsilk mills are buying in small lots for October-November delivery, which is a healthy sign. There is little or no spot business being placed. The future call stresses two-plys, with a light but steady interest in singles. Spinners are not curtailing production to any extent; they cleared all stocks up to several weeks ago, thanks to the spirited shantung demand, and they are confident that the slight excess in output at present will be covered in buying for fall.

Prices are steady, and market tone is satisfactory. Broadsilk manufacturers have strong confidence in their spun silk fabrics, due to the good showing made by these lines this spring. Spinners report that the weavers expect shantungs to be even bigger next year, and large-scale buying of yarn for these lines is looked for in fall.

Other consuming markets are quiet. The woolen and worsted trade shows some interest, but orders are small and only a few firms are buying.

# ◆Holiday Week Defers Thrown Silk Buying

THROWN silk is decidedly off tone, numerous causes contributing to bring about a very quiet soft condition; among these are the holiday week-end interruption, the summer lull, and the weakness of raw silk. Interest in grenadine twist yarn, which has been the

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mainstay of the market during the past month, has waned temporarily; hosiery mills have slackened up on buying, and throwsters have difficulty in effecting turnover.

The market is duller even than normal for the summer season, due to continued uncertainty regarding fall prospects. Some of the large thrown yarn mills report occasional inquiries about grenadine twist, and there is a frail hope that business may pick up after Independence Day. However, no real improvement is looked for then, the trade as a whole being reconciled to four or five weeks of pronounced quiet.

Mills are producing cautiously, and there is only a moderate surplus on hand. Throwsters estimated this week that the average thrown yarn mill was operating only 40% of capacity. Prices are soft to the point of being nominal in some yarns, quotations dropped about 15c. during the past ten days.

# Favor Rayon Curtailment

### *One Producer Cuts to 50% and Others May Follow*

RAYON buying is light but the so-called "summer depression" has been less pronounced than was expected. There is a steady call from knitters for 150s; it is all spot business and orders are small, but this moderate activity has encouraged the trade and the outlook is fair. Knit goods manufacturers are producing actively, especially those making underwear and polo shirts. Consumer demand for these lines is sustained, and manufacturers believe this call will last a good part of the summer. Several of the smaller rayon producing companies said their only current call was from the knit goods group; broadsilk weavers are hesitant and are placing little or no business. The polo shirt "boom" has helped the movement of 150s, and considerable business is being placed at that end.

PRICES MODERATELY FIRM

Yarn prices are moderately firm. At the weaving end, there is a downward trend, due to the active call for 80c. inferiors, but the principle producers are holding to their list figures. Underwear knitters are still hesitant about buying the finer sizes, and there is little prospect of any immediate change in the type of yarn they will use. Some sales executives of the yarn companies say underwear manufacturers are determined to continue consumption of 150s, despite the recent reduction in the price of finer deniers.

Indications are that the mills could be persuaded to use 100s, provided market demand were more stable, but there is strong resistance to the use of 75s for underwear. The mill men complain that the 75s are too fine for rapid output; that they slow up production to a point where a mill cannot get out sufficient volume. There is no big objection to the higher price of 75s as compared to 150s, and the knitters also like the trade-up idea. It is believed, however, that the instruction now being given the mills by rayon technicians on the knitting of the finer yarn, will help to overcome this handicap objection.

Price revision and production curtailment are topics of considerable discussion in the yarn market at present. Whispers are heard in numerous quarters of a pending downward revision of the price of 150s, but so far the report is without any substantial basis. It has its foundation in the slowing-up of sales, and in the keen competition between standard and substandard yarns.

The president of a leading yarn company stated this week that his firm would reduce output to 50% of capacity instead of 60% as had been the policy for some months. Other producers are understood to be sympathetic to further curtailment, though they have given no figures. There is a strong feeling that adequate curtailment might obviate the need, if there is any need, for a price cut. It goes without saying that reduction of output would be a better solution than another price revision. The present discussion about a possible price change does not seem to have reached the stage of affecting demand, but it is recognized that such comments are always disquieting. The general feeling in the trade is that the next six weeks will be quiet, due to summer lull, and that late August may mark the start of fall activity.

## ◆Rayon Waste Outlook Better

GARNETTERS show some slight interest in rayon waste, and are buying moderately for the woolen trade. Woolen and worsted manufacturers are believed to be getting ready for active fall production. Numerous inquiries from this end are reported by waste dealers, and although the actual business being placed is small, the prospects are better than for some weeks past.

Thread waste prices are steady, thanks to the demand from garnetters. Open waste is slightly off, combers not manifesting any interest even at bargain prices. Top-makers also are hesitant. Waste dealers look for improvement toward the end of July, but the come-back will be slow. Manufacturers are by no means sure of the fall prospects and are hesitant regarding waste yarn.

## ◆Cotton Waste Market Eases

BOSTON.

HOLDERS of good cotton wastes are offering resistance to any further lowering of values on comber and strips but find that they have to meet the buyer if any business is to be done. Comber seems to be in a weak position but its weakness is the result of the decline in the cotton basis, certainly not because of any large stocks. New Bedford has been producing less comber month by month for year to date, and it may be assumed when consuming mills really require comber, even if in moderate quantities, this high grade waste will stage a comeback. Strips are probably the most active stock on the market, with a better demand seen for the peeler quality. Threads have been affected by the prevailing weakness and is now said to be quite difficult to secure 8½c. even for the best packing. Best quality picker sells around 5c.

Percentage prices on comber and strips are higher, but not sufficiently high enough to offset the fall in the cotton basic price. The trade can hardly look for any substantial waste buying in the near future, certainly not until the drastic curtailment now proceding in the cotton industry comes to an end. Spindle activity in May showed a tremendous slump over April, a decline in activity which, based upon the daily spindle hours of the industry as a whole, indicated for every working day in May a decrease of 38 million hours.

Consuming interests continue bearish and are likely to remain so until the cotton situation clears itself, which desirable event may occur sooner than generally expected. Study of the market shows that quotations on old and new crop cottons during the last two or three weeks have been approaching the same price line. There is no longer the big spread between near months and distant months. This tremendous difference has been disturbing to the cotton manufacturer who has lost considerable money through his inability to protect his cotton purchases by satisfactory hedging in the futures market. It seems likely that the success of the waste market for the rest of the year will be determined in a large degree by the extent of the comeback in the cotton spinning industry.

## ◆Much Slower Call for Noils

BOSTON.

THE noil market is quiet but confident in the soundness of its position. Noils have been very steady in price for several weeks and the output from combing mills of the United States has been on a declining scale. A leading noil house states that the market is still very slow, that mill demand is

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# NATIONAL

disappointing, but that in spite of these handicaps prices are very firm on all qualities. That the output is small is considered a favorable factor at the time when stocks are quite adequate, except in a few specialties. Dealers continue to maintain a hopeful attitude and do not hesitate to express the opinion that there are better times ahead for the noil market.

Woolen mills are not showing any great comeback at this time. They have apparently lost their usual advantage of being able to produce certain lines of men's wear fabrics cheaper than the worsted industry. The higher tariff on the raw materials used by woolen mills, though of little influence at the moment, is not unlikely to exert a disturbing influence on woolen manufacture before the year is over.

### Importing in Abeyance

The Continent is still buying noils in Bradford where price level is generally lower than in France and Germany. America is out of the market. A fine clean noil would cost in Bradford at this time, 40c., and with duty, freight, and condition added, would give a landed price of about 66c. with the domestic quotation standing at 65 to 68c. There is not likely to be any immediate outbreak of importing under the higher tariff, but if an American mill demand should lift prices on Summer Street and lack of demand in Bradford should allow noils to fall to a lower level then a resumption of buying in the foreign market might be expected.

## ◆Woolen Rags Stagnant at Lows

Boston.

THE old woolen rag market is very dull, too stagnant to even indicate a trend. Some time before the year is over the effects of the highest duty on rags ever seen in tariff legislation will be exhibited in several ways. First of all it will be evident in shutting out completely the usual line of old woolen rags that have been coming in around 20,000,000 lb. annually and, secondly, providing the mill demand appears, in a generally rising market for domestic rags. Looking at the question in a larger way it may be said that, if a high duty on wool is influential in enabling wool growers to get better prices for their products, then a prohibitive duty on woolen rags will work out similarly for the domestic rag trade.

### 18c. Duty Prohibitive

Not for a long time has the woolen rag situation been so sluggish. Mill purchasing is in two to five bale lots with prices in favor of the buyer. When it comes to rags graded by responsible houses for manufacturers direct use, prices are generally above those seen in the Chelsea district.

A leading foreign rag house states that the tariff of 18c. per pound has had not the slightest influence either on prices or demand for the large quantity of foreign knit stocks recently taken out of bond. It was intimated that a change in the price situation awaited the appearance of some show of activity by consuming mills, that the market was too thin at this time to even think of higher prices, even on the best of materials. Asked as to the effect of the tariff on old woolen rags, this factor stated that it would positively bring their import to an end. When it was suggested that the tariff, though very high, might not affect the import of white hosiery and similar clips, he replied that before this could occur the domestic market for these materials would have to be higher and the foreign market lower, that there was too small a spread between the markets at this time to operate under the handicap of an 18c. per pound duty.

### Dewsbury Market Lower

Prices in the Dewsbury market have moved to lower levels but they would have to register a genuine slump before any importing could be done. Fine white Berlins are down to 112s. per 100 lb. as compared with 200s. a year ago. The best white knits which have been a regular import into the United States are now down to 90s. or about 19c. per pound, which, with duty and freight added, would give a landed price in Boston of 38c. If this British knit should decline another 5c. on the foreign market it might then be imported because it is superior to domestic knits, rarely requiring carbonization.

## Cotton Steady But Quiet

### *Traders More Inclined Toward Bullish Possibilities*

THE cotton market has shown rather a keener appreciation of the hazards which are always before the crop at the beginning of July and the possibilities of improving trade conditions in its actions of the past week. Buying has not been at all general or aggressive. Bullish possibilities need emphasizing either by crop complaints or reports of a more cheerful character from the cotton-goods markets to create any determined buying. Nevertheless, there has been less disposition to sell on bearish features, and it looked as if the decline to 12.55 for the new October contract during the previous week had brought in a renewal of trade demand. This showed no disposition to follow up the advances, but did suggest that cotton might be approaching an investment basis, and led to a considerable amount of covering, which became a little more active when it was found that July liquidation was proceeding along the anticipated lines. The new October recovered to about the 13c. level,. with the market quiet but fairly steady preceding the three day adjournment over the national holiday of Friday.

### Notices Aggregate 175,000 Bales

Notices issued against July contracts up to the close of business on Tuesday, including notices for delivery at Savannah and notices issued in the New Orleans and Chicago markets, aggregated about 175,000 bales according to estimates. The interests representing the cooperative marketing associations have been stopping notices as rapidly as received, and it is supposed that they have taken the bulk of these July deliveries. Further deliveries are expected during the month.

At the close of business on Monday, certificated stocks reported to the New York Cotton Exchange as of June 28, amounted to 771,496 bales, and people who are in close touch with such matters predict that by the end of this month they will be up to about 850,000 bales. The liquidation of July has narrowed down to very small proportions, however, and it is likely that the average trader is becoming more inclined to set the Federal Farm Board and farm relief to one side for the moment and devote more of his attention and consideration to the factors which normally govern the price of cotton. These will undoubtedly determine the average price for this season, although the cooperative marketing movement may secure a better price for the farmers' early receipts.

The impression is that the end of the season will find about a million bales of the carry-over in this country in the hands of cooperatives, representing nearly as much as the increase in the world's carry-over of American lint cotton. It is not expected that this cotton will be marketed in competition with early receipts from the farmer unless prices should advance to the farm-loan values of last October; and if conditions should shape up in a way justifying a bull market, an item of a million bales in the carry-over would not prevent an advance.

### End-June Reports Average 71.5%

So far, six private end-June crop reports have been published. They show conditions ranging from 69.9 up to 73.0% and averaging 71.5%. Six reports on the indicated decrease in acreage, including that of the *Financial Chronicle*, range from 2.8 up to 4.3%

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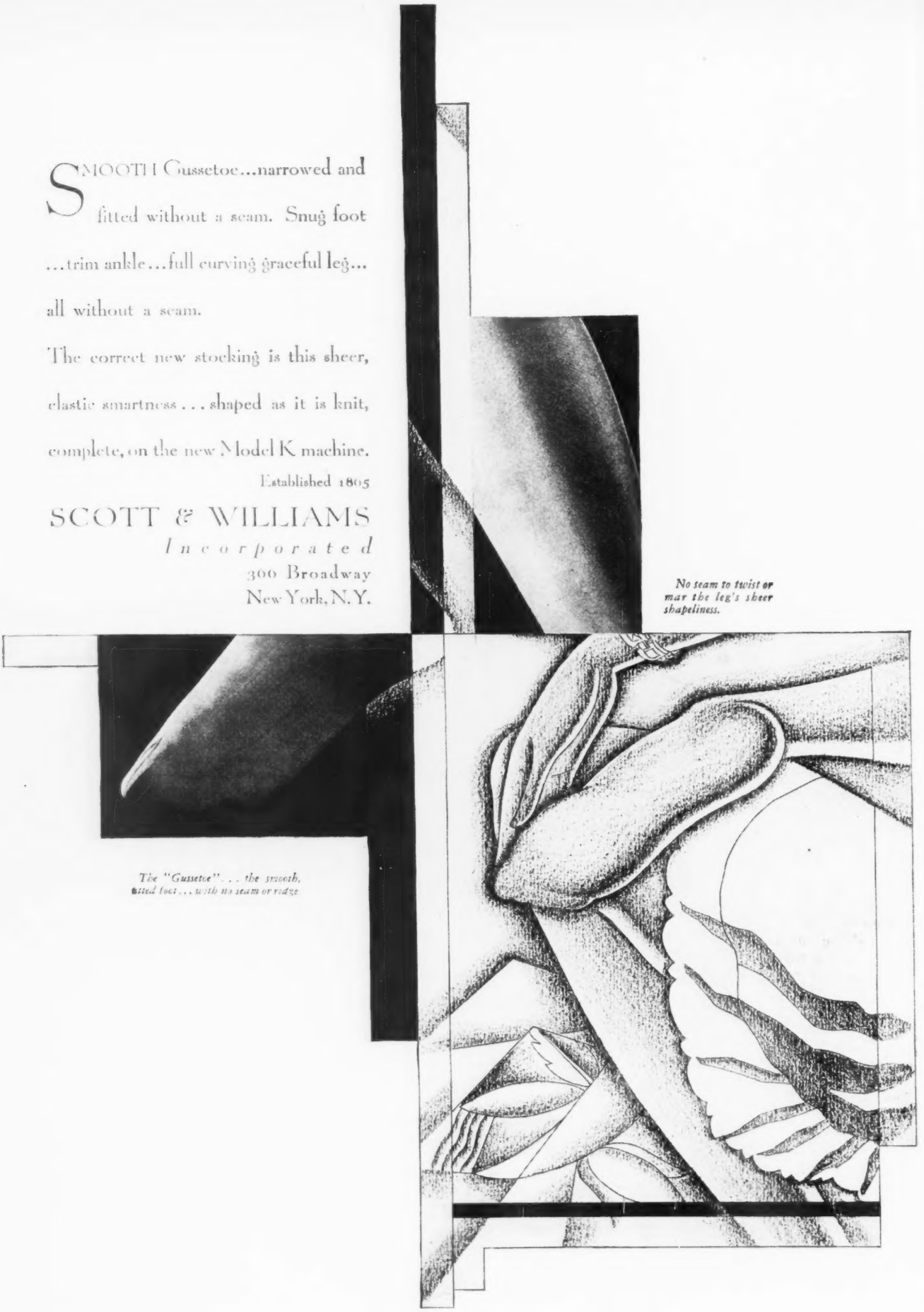

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and average 3.5%. Four of these private reports have carried figures on the indicated crop ranging from 14,150,000 up to 15,061,000 bales and averaging 14,670,000 bales.

The weather during the past week, is most generally believed to have been fairly favorable for the crop, although some uneasiness has been expressed over the recent very high temperatures over the belt and need of rain in the western and central areas. This hot weather, however, should have tended to check the spread of boll weevel and some authorities in the interpretation of their condition figures are evidently inclined to discount comparatively little damage from the boll weevil this season.

A firmer basis has been reported in the South, resulting apparently from an advance in the basis of the cooperative associations, but business has remained comparatively quiet. Rather more inquiry has been received, with European spinners showing more interest in cotton for forward shipment.

•

BOSTON. — The cotton market was irregular during the week, the average price approximately a half cent lower with mill demand showing no noticeable expansion. Now that natural law is operating to narrow the spread between old and new crop quotations mill men are showing a little less timidity in purchasing additional cotton. In some quarters there is more disposition shown to cover actual needs to end season. Prices were easy to soft throughout the week and the turnover in the aggregate was subnormal.

Curtailment plans for the summer are so extensive and goods markets so unfavorable that there is little incentive to buy cotton beyond the needs of uncompleted business. Filling in sales were responsible for most of the week's trading. Merchants with cotton on hand in small odd lots were willing to let it go on any kind of a firm bid, but those holding staple cotton in round lots exhibited a stiffer attitude. Slightly off-grade cotton was in favor in certain places of the market, though in small movement. The short cotton market was affected by the narrowing of the differential between July and October futures, but it was possible to buy very cheap in small lots. Middling $\frac{7}{8}$ in. cotton was picked up at 25 off July futures.

•

MEMPHIS, TENN., June 30—Inquiry recently developed encourages the hope that some business of sizeable proportions may become an actuality within the not very distant future. Inquiry is not general and in most instances is confined to small lots for immediate or early new crop shipment, but some inquiry suggests that important mills might be interested for a year or more ahead if satisfactory arrangements can be made. There is considerable difference as to price ideas but neither mill nor shipper seems disposed to abandon the prospect without further attempts to smooth out these differences.

Demand for export is at a standstill; domestic mill demand, for immediate or nearby shipment, is centered on low grade specialties and strict low middling to strict middling 1 to $1\frac{3}{32}$ in.; sales are restricted as much by scarcity of the wanted grades of 1 to $1\frac{3}{32}$ in. as by price resistance or lack of demand; most of the stock in first hands is below grades wanted. Practically nothing is being done in staples of the medium and better grades, although, season considered, stocks are large. The staple basis is quoted unchanged from the previous week but sellers are on the defensive.

Sales here during the week total 1,888 bales against 8,710 bales for the corresponding week last year; sales for the season to date total 1,006,428 bales against 963,094 bales to the same date last year. Compress stocks here and throughout the territory are considerably above average for the date. The outward movement has been greatly reduced, although for the week, exceeding last year or the year before, because of cessation of the movement for certification and delivery on contract.

The weather during the week was hot and dry all over the belt, except moderate showers in South Carolina, Georgia and Oklahoma. Temperature maxima were 100 degrees most days of the week in interior sections of the belt, ranging up to 108 locally in central sections and locally in Texas. The central belt has not had rainfall of consequence in 40 days and is badly in need of it for late cotton but older cotton is doing well. Both young and old cotton are of good color. Fields are clean and well cultivated.

# Boston Receiving Much Wool

## *Domestic Clip Arriving in Quantity— Foreign Wools Out of Bond*

BOSTON.

THE wool market continues fairly steady, but, with business arriving on a smaller scale, it seems impossible to do anything more than maintain values on current basis. Mill buyers are offering steady resistance to any attempt on the part of wool sellers to mark up prices. They would prefer, it is said, that the market should remain stable on current price level, on which level they have priced their fabrics, anticipating a good response when the goods market overcomes its timidity.

Wool demand appearing on Summer Street is almost entirely from worsted manufacturers, who continue to operate in original and French combing fine wools at unchanged prices. The demand for woolen wools is almost negligible. The scouring plants in this part of New England are very short of business. Worsted manufacturers have the advantage of cheap fine domestic wools while the differential against woolen raw materials as a whole is obstructing a woolen comeback though helping additional expansion in worsted manufacturing.

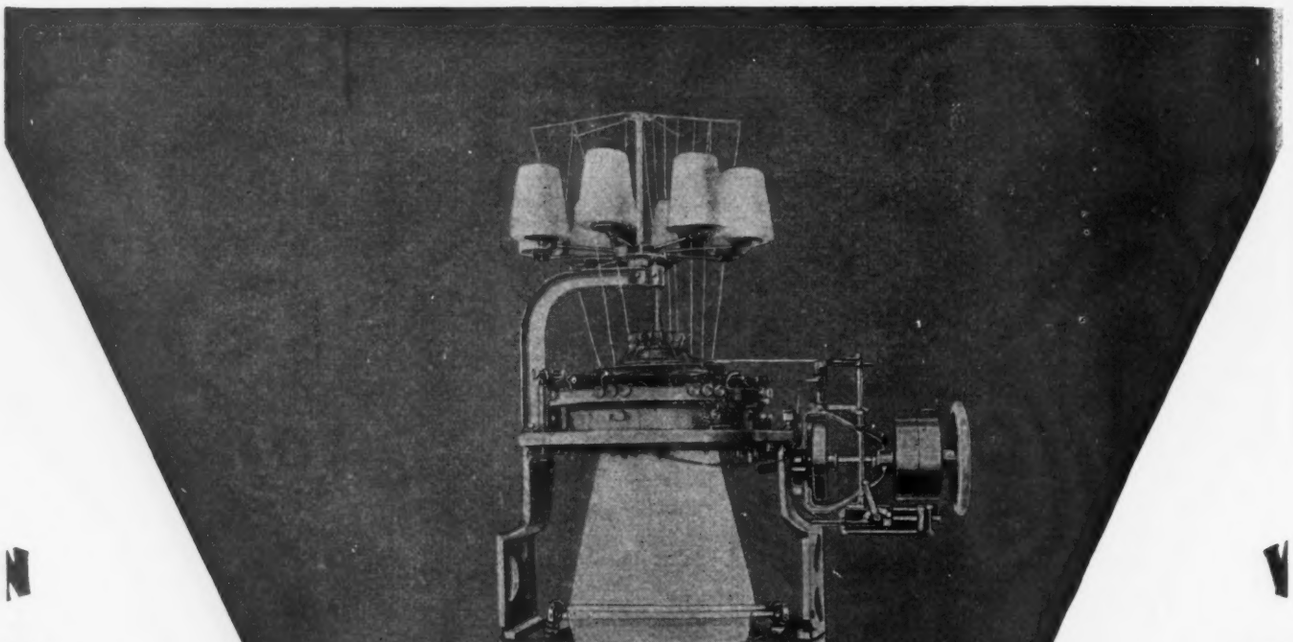
### DOMESTIC MERINOS CHEAP

The market continues dull but strong. Quotations on standard grades both foreign and domestic are unchanged for month to date. The passage of the tariff has had no influence to date, although it may be noted that the imported wools on which duty had been paid are not unlikely to exercise some selling pressure on the market in the near future. Australian 64s-70s super warp, which may be compared with domestic fine staple, is quoted around 93c. Making an allowance of 8% for superior packing, this will yield a price of 85c. as compared with a price of 75c. for similar domestic wool.

Domestic wool is arriving in Boston in large quantities and it seems probable, now that the selling agency of the National Wool Marketing Corp. is located on Summer Street, that a larger quantity of domestic wool will be handled in this district than for many years. The receipts of domestic wool for year to date show an increase of 16,600,000 lb. This relative increase over last year will undoubtedly continue its upward trend. Imports of wool are at their maximum in the first four months of the year; receipts of domestic wool reach maximum in May-August period.

The first import of wool into Boston under the higher tariff was 2,000 bales of merinos from Australia. The addition 3c. a pound clean content duty can have no practical result in restricting imports of these wools, some of which are superior to domestic growths and always much better packed, requiring a minimum of handling before going into mill consumption. There was a great rush to take wool out of bond when it became apparent that the tariff would become law. The total for the four days prior to the new tariff becoming effective amounted to 11,700,000 lb., the total duty paid $1,510,000.

The National Wool Marketing Corp. has acquired 20,000,000 lb., almost one-half of the total Texas clip. A large quantity, approximately 5,000,000 lb. of 8-month's wool, was offered recently at a sealed bid sale. The bids made were



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NORRISTOWN, PA.

# WILDMAN
## SPRING NEEDLE BODY MACHINE

too low to be accepted, but it was stated at the time that a leading Boston wool house which specializes in Texas wool had an option on the entire quantity. It now appears that the wool pool has outbid all competitors.

# What's Ahead for Raw Silk?

### *Market Weakest in 20 years; Early Pick-up is Unlikely*

THE current raw silk situation presents such a complex picture of uncertainties and cross-currents that intelligent interpretation is difficult. One point is clear: the market is going through the weakest period is has known in nearly twenty years. One has to go back to 1913 and 1914 to find levels paralleling those of today. In 1914, due to outbreak of the European War, according to Silk Association statistics, raw silk dropped to $2.85, which is one cent below the lowest price quoted last Monday.

Just what is ahead of the market, it would be hard to say. It seems perfectly conceivable that prices may weaken further, and may continue weakening, until they are pulled up by fall buying. At present, neither weavers nor knitters are contracting for anything more than their actual and immediate needs. Broadsilk mills in particular are cautious, a scarcely surprising fact, in view of the losses they incurred due to market breaks in the past two months. Raw silk trading has become almost entirely a speculative proposition, with the more conservative firms following a hold-off policy as regards imports. Price standard means nothing; quotations mean nothing. The figure acceptable to one importer is rejected by the next, all depending upon the firm's need for cash and the amount of stock on hand.

#### Market Uncertain

One leading importer summed the situation up as follows: "The market is in a state, not of panic, but of great uncertainty. It is impossible to say what is coming. Three things are possible—silk may go lower; it may come back; or it may be stabilized at something approaching the present market."

It is clear that the present weakness is more than a reaction to the industrial depression following the market crash. It has its roots in many developments, and cannot be ascribed to one or two. Overproduction in Japan, obviously is a contributing cause; the downward trend of cotton and rayon prices also helped. Importers who discussed the matter this week said it would be months before the air cleared sufficiently to allow for an intelligent appraisal of the reasons for the present slump.

Immediate prospects for raw silk are discouraging. July is normally a dull month, and there is scant likelihood that August will be much better. Broadsilk mills complain that their fall lines are backward in selling, and mills are curtailing output for their own protection. Indications are that raw silk demand throughout July will be light, that August volume will be less than last year, and that, with the season starting late the total raw silk turnover for the second half will be below last year.

#### Effect on Importers

Importers have suffered much less than might be expected in the present slump. Inquiry this week disclosed that the majority of firms are in a reasonably strong position. This is due to keen watch on daily developments, and a conservative policy on imports. Buyers have been the chief victims to date—which is precisely why demand is now shrinking so steadily.

## ◆Bathing-Suit Call Prolonged 3 Weeks

BATHING-SUIT reorders continue coming in at such a pace that mills expect the season to run two to three weeks later than usual. Large-volume producers this week have enough rush business on their books to keep them actively delivering until the third week of July. Independence Day is usually the turning-point and the smaller firms probably will note a big drop next week. Jobbers are still in the market placing spot orders, and producers comment that demand is "surprisingly large for the end of the season."

Demand for fall sweaters shows a slight improvement. Coats and pullovers are in fair call, especially the dark shades. The real pick-up in winterweight lines has not yet registered, but some improvement is looked for about July 15.

There is no let-up in the high-pressure call for rayon polos. Production has increased, enabling mills to make spot deliveries, and the knitters look for demand to continue until late August. Blue, buff and white are favorites.

# Hosiery Selling Ahead

### *Future Tendency Brings Encouragement to Market*

HOSIERY market sentiment at the grenadine full-fashioned end is considerably stronger, but half-hose continues weak, with buying less than last week. The larger mills specializing in women's stockings are receiving numerous inquiries for fall, and jobbers are more confident. Prices of standard lines are better, though levels are still far below normal. Producers believe that there will not be any further reductions in quality numbers, and that the three months between now and October will be marked by a fairly steady gain.

There is a moderate amount of future business being placed in full-fashioned, some firms covering as far ahead as December. However, these instances are few, and the orders are small. Jobbers are still feeling their way. They are buying with the utmost caution, and orders are usually about half their normal size. Grenadine twist stockings gain slowly, and are regarded as good fall prospects. The numbers made to retail at $1.65 and at $1.95 both are in active demand.

#### Growing Confidence

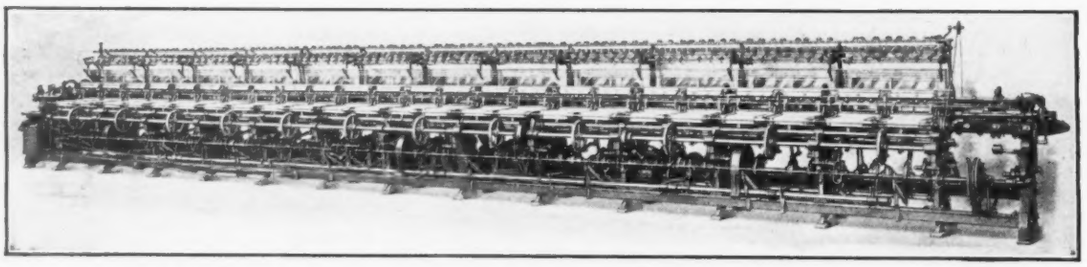
While the market is a long way from stability, there is a growing confidence both among buyers and knitters. Jobbers report a better retail demand, and they are buying actively; they follow the policy of frequent repeats on small orders. Mill men do not look for any great quantity of fall business in either July or August. The pick-up will begin in September and will not reach any real proportions until October, it is believed.

#### Half-Hose Slow

Half-hose demand stresses lower end goods, and even here orders show a falling-off. Producers of 25c. and 35c. lines have difficulty in getting a turnover, due partly to the short holiday week. No strengthening of men's lines is looked for until after Independence Day. With regard to fall, half-hose knitters expect a greater interest in silk, silk-and-rayon and cotton staples, and also in low-price fancies which are not too loud in design. Wool hosiery demand will be lighter in fall, certain factors believe, due to the consumer prediction for economy in buying.

## ◆Light Underwear Shipments Behind

KNITTED lightweight underwear is moving steadily, and some mills are behind in shipment of cotton garments. Athletic shirts and shorts, especially those retailing at 50c. are enjoying good call. Rayons also are



The Reading Full-Fashioned Knitting Machine as it stands today — after 32 years of development — is the lowest priced, highest producer ever offered.

# Is this a record?

Scarcely three months ago a new mill* located *in virgin territory* started operating with Reading Machines and a green crew. Today these newly-trained knitters are producing 18 dozen pairs per machine per shift.

If this is a record you can duplicate it —provided you give your apprentices the advantages of Reading Full-Fashioned Knitting Machines.

*Name on request.

TEXTILE MACHINE WORKS - READING - PENNA.

## The "READING" Full-Fashioned Knitting Machine

in demand. Eastern buyers are calling for two-piece numbers, both rayons and cottons, and the West is placing fair-sized orders for cotton union suits. The lightweight situation has registered a substantial improvement during the past four weeks and some mills report that sales are about equal to those of last season; as a whole, however, sales are still behind 1929 in lightweights.

Knitters expect lightweights to continue selling until late August, and the usual hope of an all-year lightweight business is expressed. This hope has more basis this year than hitherto, in view of the growing tendency away from winterweights, but some mills are inclined to lay too much stress on that factor. Winterweight underwear, though less important than previously, is still a vital division. During the recent industrial hesitancy it is an open question whether heavyweights suffered more than other lines, and it is perfectly possible than August-September may bring a last-minute volume business sufficient to strengthen this division. Jobbers and retailers have held off on heavyweight committments in the hope of a downward price revision. Heavyweight knitters who discussed that point this week were insistent that prices would hold present levels. The rates announced at the beginning of the season represented a drop considerably below last year, and the industry could not reduce further without eliminating profits, it is contended.

Demand for rayons is steady, and promises to compensate for the late start. Orders are small but numerous, and spot buying prevails

# Cottons May Have Passed Bottom

### *Resistance Point Reached in Print Cloths*

LATE last week cotton goods passed through what many believe may prove the low water mark for the year. At that time gray goods, and the print clothes particularly, declined severely, the 38½ in. 64x60s touching 5c. According to statements, such a price had not been reached on this construction since 1916, at which time cotton was 2c. lower than at the present.

"Resistance Point" Reached

Not all sellers disposed of goods at these extremely low prices, yet there was enough selling to total a considerable yardage; more than had been reached for many weeks. Those most optimistically inclined, viewed this as the resistance point. Heretofore, lower prices had had little or no effect on buying demand, but in this instance there was a sharp spurt in sales. So much so, that prices reacted almost immediately. By the close of the week, quotations had gained ⅛c., and later the 5.35yd. 64x60s were 5⅛c. in most centers.

Unfortunately, other types of staple gray goods did not share in the activity. Narrow sheetings remained quiet as did the general run of colored goods.

Salesmen recently returned from the South tell of extreme quiet in the wholesale trade. The major obstacle has been the declining price of cotton which has caused most dealers to talk "poor mouth." At the same time, the opinion was advanced that a pick-up in July or August was expected. Stocks in jobbers' hands are low and quite a bit of filling-in will be necessary for fall business.

There was considerable speculation over the possibility of new denim prices. Leading producers stated that they were marking time and had no idea when prices would be named for the coming quarter. A few mill men, not denim manufacturers however, stated that a 13½c. figure for the 2.20s would not be surprising in view of raw cotton.

# ◆Better Wool Goods Sales Expected in July

WOOL goods sales showed a further declining tendency during recent days, possibly because of buying disinclination before the Independence Day holiday. There are, however, certain optimistic signs on the horizon. Sellers believe that bottom has been scraped and that a slow improvement may be expected soon. They admit, however, that if this improvement does not materialize during July, it is highly probable that betterment will not be apparent for many months.

The most promising factor is that New York retailers have not purchased their supplies of fall clothing. It was reported that R. H. Macy & Co. will place their orders soon and probably will be followed by other houses. It was pointed out that these large retail stores have been in the habit of demanding August delivery so that they may have the clothing on sale soon after Labor Day. It was stated that July 15 is the latest date that orders can be placed with mills to insure such delivery of garments.

Clothiers' stocks are in clean shape, with the possible exception of overcoatings, and it is quite possible that demand will be considerably better in the next two weeks.

While selling agents tell of a good business with tailors-to-the-trade, they also report that the manufacturing-retailers have been very backward. In fact a great many have not placed initial business yet.

The experience of the sellers of medium and better grade cloths so far this season, has been disappointing. Several of them speak of the distinct trading down tendency of many customers which, in a measure, accounts for the volume secured by several of the popular priced mills.

Sales of topcoatings are reported to be increasing steadily. Tweeds, as well as llama and camelhair types are prominent.

# Broadsilk Demand Backward

### *Fall Buying Behind Normal; Cutters and Retailers Hesitant*

CUTTERS and piece goods buyers are still backward in placing their broadsilk orders for fall. Broadsilk mills are doing a fair business at the retail end; there were numerous piece goods buyers in the New York market this week and they showed interest in both the plain and printed canton crepes. Orders are smaller than the mills hoped for, and fall commitments are about a month behind this time last year. Small design canton prints are favored, the most popular colors being brown, rust-red, wine and green and stone-blue. Orders are mostly of the "feeler" variety and the trade does not look for big volume demand until the end of the month.

Confidence Grows Slowly

Consuming markets grow slowly more confident regarding the fall prospects but they are not letting this show in their orders. Cutters buy spottily, and always in small quantities. Retailers are placing moderate orders for both light and heavyweight velvets, and sheer velvet is expected to be moving actively by Aug. 1. There is much disposition to bargain; price is being stressed to an unusual degree, in the fall commitments. The weakness of the raw silk market is the basis of the buyers' demand for price concessions, and weavers are having difficulty in getting list prices.

Production

Canton crepes are active, and there are fair stocks on hand. Velvets are slower, and no big-scale output will be undertaken for a couple of weeks; stocks are moderate. Production of metal cloths is still limited to samples.

# QUOTATIONS

at close of business, July 2, 1930
Prices cover average qualities unless otherwise stated

## Cotton Goods

| | July 2 | June 25 | July 3 1929 |
|---|---|---|---|
| **PRINT CLOTHS** | | | |
| 27 -in., 64x60, 7.60 | 4c. | 4c. | 4¼-5c. |
| 38½-in., 64x60, 5.35 | 5½c. | 5½c. | 7½c. |
| 39 -in., 68x72, 4.75 | 6½-6¾c. | 6 -6¼c. | 8½c. |
| 39 -in., 72x76, 4.25 | 7¼-7½c. | 7¼-7½c. | 9½c. |
| 39 -in., 80x80, 4.00 | 7¾-8c. | 8c. | 10c. |
| **BROWN SHEETING** | | | |
| 36-in., 56x60, 4.00 | 7 -7⅛c. | 7 -7⅛c. | 8¼c. |
| 36-in., 48x48, 3.00 | 8⅛-8½c. | 8⅛-8½c. | 10-10¼c. |
| 37-in., 48x48, 4.00 | 6¼-6½c. | 6¼-6½c. | 7½- 7¾c. |
| **PAJAMA CHECKS** | | | |
| 36½-in., 72x80, 4.70 | 6½-6¾c. | 6¾c. | 8⅛-8¼c. |
| 36½-in., 64x60, 5.75 | 5¼-5½c. | 5½c. | 7 c. |
| **MISCELLANEOUS** | | | |
| Drills, 37-in., 3 yd. | 8¼c. | 8¼c. | 10½-10¾c. |
| Denims, 2.20 | 15c. | 15c. | 17c. |
| Tickings, 8 oz. | 18-19½c. | 18-19½c. | 22-23½c. |
| Standard prints | 8 c. | 8 c. | 9 c. |
| Eastern staple ginghams, 27-in. | 10c. | 10c. | 10½c. |

## Cotton Waste

| | |
|---|---|
| Peeler comber | 11½—12½ |
| Peeler strips | 10½—11½ |
| Sak. comber | 10½—11½ |
| Choice willowed fly | 5 — 6 |
| Choice willowed picker | 4 — 5 |
| Sak. strips | 13 — 14 |
| Linters (mill run) | 3 — 3½ |
| White spooler (single) | 8½— 9½ |

## Cotton Yarn

*(Carded yarn quotations are nominal)*

CARDED (Average Quality)

Double carded 2c.-4c. higher, according to quality

SINGLE SKEINS OR TUBES (Warp Twist)

| | | | |
|---|---|---|---|
| 4s to 8s | $.23 -.23½ | 20s | $.25½-.26 |
| 10s | .23½-.24 | 24s | .27½-.28 |
| 12s | .24 -.24½ | 26s | .28½-.29 |
| 14s | .24½-.25 | 30s | .30 -.30½ |
| 16s | -.25 | 40s ex. qual. | -.44 |

TWO-PLY SKEINS AND TUBES

| | | | |
|---|---|---|---|
| 8s-2 | $.23½ | 26s-2 | $.29 |
| 10s-2 | .23½-.24 | 30s-2 | -.30½ |
| 12s-2 | .24 -.24½ | 36s-2 | -.37 |
| 14s-2 | .24½-.25 | 40s-2 | .38½-.39½ |
| 16s-2 | -.25½ | 40s-2 hi b'k | .42 -.44 |
| 20s-2 | -.26 | 50s-2 | -.47 |
| 24s-2 | -.28 | 60s-2 | -.55 |

SINGLE WARP

| | | | |
|---|---|---|---|
| 10s | $.23 -.23½ | 24s | $.27 |
| 12s | -.23½ | 26s | -.28 |
| 14s | -.24 | 30s | -.31 |
| 16s | -.24½ | 40s ex. qual. | .44 -.45 |
| 20s | -.25½ | | |

TWO-PLY WARPS

| | | | |
|---|---|---|---|
| 8s-2 | $.23½-.24 | 24s-2 | $.28½ |
| 10s-2 | -.24 | 26s-2 | -.29½ |
| 12s-2 | -.24½ | 30s-2 | -.31 |
| 14s-2 | -.25 | 40s-2 ordin. | .39 -.40 |
| 16s-2 | -.25½ | 50s-2 | .47 -.48 |
| 20s-2 | -.26 | 60s-2 | .55 -.56 |

8s-3 and 4-ply skeins and tubes; tinged, 20-21; white, 24; waste 19-20

HOSIERY CONES (Frame Spun)

| | | | |
|---|---|---|---|
| 8s | $.23 | 22s | $.27 |
| 10s | -.23½ | 24s | -.28 |
| 12s | -.24 | 26s | -.29 |
| 14s | -.24½ | 30s tying | -.30½ |
| 16s | -.25 | 30s reg. | .31½-.32 |
| 18s | -.25½ | 30s ex. qual. | .34 -.34½ |
| 20s | -.26 | 40s | -.40 |

COMBED PEELER—(Average Quality)

TWO-PLY—(Knitting Twist) Cones

| | | | |
|---|---|---|---|
| 20s-2 | $0.41 -0.42 | 60s-2 | $0.60 |
| 30s-2 | .45 -.46 | 70s-2 | .69 -.71 |
| 36s-2 | .46 -.47 | 80s-2 | .81 -.82 |
| 40s-2 | .47 -.48 | 90s-2 | 1.02 -1.05 |
| 50s-2 | .53 -.54 | 100s-2 | 1.20 -1.25 |

WARPS, SKEINS AND CONES

TWO-PLY—(Warp Twist)

| | | | |
|---|---|---|---|
| 20s-2 | $0.42 -0.43 | 60s-2 | $0.61 -0.62 |
| 30s-2 | .46 -.47 | 70s-2 | .71 -.72 |
| 36s-2 | .47 -.48 | 80s-2 | .82 -.83 |
| 40s-2 | .48 -.49 | 90s-2 | 1.04 -1.07 |
| 50s-2 | .54 -.55 | 100s-2 | 1.22 -1.25 |

SINGLES

| | | | |
|---|---|---|---|
| 12s | $0.34½-0.35 | 30s | $0.44 -0.44½ |
| 14s | .35 -.35½ | 38s | .46½- .48½ |
| 16s | .35½- .36 | 40s | .48 - .48½ |
| 18s | .36 -.36½ | 50s | .52 -.52½ |
| 20s | .37 -.37½ | 60s | .60 -.61 |
| 24s | .39½- .40 | 70s | .70 -.71 |
| 28s | .42½- .43 | 80s | .82 -.83 |

MERCERIZED CONES—(Combed, Ungassed)

| | | | |
|---|---|---|---|
| 26s-2 | $0.59 -0.61 | 90s2 | $1.37-$1.40 |
| 30s-2 | .60 -.62 | 100s-2 | 1.67 -1.70 |
| 36s-2 | .63 -.65 | 120s-2 | 2.07 -2.10 |
| 40s-2 | .65 -.66 | 30s | -.75 |
| 45s-2 | .67 -.70 | 40s | -.80 |
| 50s-2 | .69 -.72 | 50s | -.85 |
| 60s-2 | .77 -.79 | 60s | -.90 |
| 70s-2 | .91 -.94 | 70s | -1.05 |
| 80s-2 | 1.04 -1.07 | 80s | -1.25 |

## Cotton Prices and Statistics

COTTON STATISTICAL DATA

(Fluctuations of Futures)

| | Closed June 26 | For Week—High | For Week—Low | Closed July 1 | Net Change |
|---|---|---|---|---|---|
| July | 13.71 | 13.82 | 13.26 | 13.53 | — 18 |
| August | 13.25 | 13.97 | 13.04 | 13.45 | + 20 |
| September | 13.35 | 13.35 | 13.07 | 13.27 | — 08 |
| October | 13.38 | 13.45 | 13.11 | 13.38 | ..... |
| November | 13.44 | 13.44 | 13.28 | 13.44 | ..... |
| December | 13.54 | 13.60 | 13.31 | 13.51 | — 03 |
| January | 13.53 | 13.59 | 13.28 | 13.56 | + 03 |
| February | 13.38 | 13.41 | 13.25 | 13.41 | + 03 |
| March | 13.49 | 13.57 | 13.23 | 13.51 | + 02 |
| April | 13.59 | 13.60 | 13.49 | 13.60 | + 01 |
| May | 13.69 | 13.77 | 13.41 | 13.73 | + 04 |

MIDDLING SPOT FLUCTUATIONS FOR WEEK

| | New York | New Orleans | Liverpool |
|---|---|---|---|
| Friday, June 27 | 13.60 | 12.85 | 7.74 |
| Saturday, June 28 | 13.70 | 12.94 | 7.72 |
| Monday, June 30 | 13.55 | 12.76 | 7.58 |
| Tuesday, July 1 | 13.65 | 12.85 | 7.50 |
| Wednesday, July 2 | 13.60 | 12.76 | 7.57 |

SPOT FLUCTUATIONS AND STOCKS

| Markets | June 25 | July 1 | Sales | Stocks This Week | Stocks Last Year |
|---|---|---|---|---|---|
| Galveston | 12.75 | 13.05 | 634 | 206,342 | 122,199 |
| New Orleans | 12.63 | 12.85 | 2,624 | 386,354 | 137,208 |
| Mobile | 12.40 | 12.50 | ..... | 12,003 | 19,316 |
| Savannah | 12.44 | 12.63 | ..... | 96,775 | 22,121 |
| Norfolk | 13.00 | 13.00 | 920 | 52,061 | 40,825 |
| New York | 13.45 | 13.65 | 200 | 235,964 | 166,622 |
| Augusta | 12.50 | 12.75 | 275 | 52,463 | 39,992 |
| Memphis | 11.85 | 12.30 | 1,425 | 184,540 | 76,415 |
| St. Louis | 12.25 | 12.25 | ..... | 7,864 | 12,896 |
| Houston | 12.60 | 12.85 | 1,882 | 580,622 | 227,625 |
| Dallas | 12.15 | 12.55 | 1,045 | ..... | ..... |

BASIS MIDDLING

| | Saturday, June 28 | Saturday, June 21 |
|---|---|---|
| 10 markets average | 12.67 | 12.59 |
| Memphis | 12.35 | 12.10 |

PREMIUM STAPLES

First Sales from Factors Tables at Memphis

| Grade Strict Middling | Prices Nominal |
|---|---|
| 1⅛-in. | 14.70—15.10c. |
| 1 3/16-in. | 16.30—16.60c. |
| 1¼-in. | 21.00—21.35c. |

CURRENT SALES

| | For Week | Prev. Week | Week Before |
|---|---|---|---|
| Memphis total | 1,888 | 1,448 | 2,594 |
| F.o.b. included in total | 1,615 | 1,123 | 2,045 |
| 10 markets | 11,082 | 10,889 | 9,595 |

MEMPHIS RECEIPTS, SHIPMENTS, ETC.

| | For Week | Last Year | Year Before |
|---|---|---|---|
| Net receipts | 1,379 | 1,504 | 950 |
| Gross receipts | 4,049 | 2,750 | 5,335 |
| Total since Aug. 1, net | 938,188 | 858,833 | 663,760 |
| Shipments | 13,421 | 7,893 | 11,039 |
| Total since Aug. 1 | 1,823,125 | 1,795,129 | 1,447,196 |
| Total stock | 189,794 | 84,383 | 114,149 |
| Decrease for week | 9,372 | 5,143 | 5,704 |
| Unsold stock in hands of Memphis factors | 29,656 | 5,866 | ..... |
| Decrease for week | 2,782 | *113 | ..... |

*Increase.

AVERAGE PRICE JULY-AUG. SHIPMENT HARD WESTERN COTTON

| | F. o. b. New England Middling | St. Middling |
|---|---|---|
| 1 1/16 in. | 15½-15¾c. | 16 -16¼c. |
| 1⅛ in. | 16 -16¼c. | 16½-17 c. |
| 1 3/16 in. | 18 -18¼c. | 19 -19¼c. |
| 1¼ in. | 23 -24 c. | 24½-25½c. |

Basis on New York, July, 13.53c.

DIFFERENCES ON AND OFF MIDDLING

WHITE GRADES

| | Dallas | Memphis | Montgomery | Augusta | Average |
|---|---|---|---|---|---|
| M. F. | 1.05† | 1.00† | 1.00† | 1.00† | 1.00† |
| S. G. M. | .90† | .85† | .90† | .88† | .86† |
| G. M. | .75† | .75† | .75† | .75† | .72† |
| S. M. | .50† | .50† | .50† | .50† | .50† |
| S. L. M. | .75* | .65* | .65* | .75* | .71* |
| L. M. | 1.75* | 1.75* | 1.50* | 2.00* | 1.73* |
| S. G. O.** | 3.00* | 2.75* | 2.50* | 3.25* | 2.88* |
| G. O. | 3.00* | 2.75* | 2.50* | 3.25* | 2.93* |

YELLOW TINGED

| | | | | | |
|---|---|---|---|---|---|
| G. M. | .50* | .25* | .50* | .50* | .55* |
| S. M. | 1.00* | .75* | 1.00* | 1.00* | 1.05* |
| M.** | 1.75* | 1.25* | 1.50* | 1.50* | 1.65* |
| S. L. M. | 2.50* | 1.75* | 2.25* | 2.25* | 2.32* |
| L. M.** | 3.50* | 2.25* | 3.00* | 3.00* | 3.22* |

YELLOW STAINED

| | | | | | |
|---|---|---|---|---|---|
| G. M. | 1.50* | 1.75* | 1.50* | 1.50* | 1.55* |
| S. M.** | 2.25* | 2.50* | 2.50* | 2.50* | 2.40* |
| M.** | 3.00* | 3.00* | 3.50* | 3.50* | 3.20 |

BLUE STAINED

| | | | | | |
|---|---|---|---|---|---|
| M. G.** | 1.75* | 1.50* | 1.75* | 1.75* | 1.70* |
| S. M.** | 2.25* | 2.25* | 2.75* | 2.75* | 2.45* |
| M.** | 3.00* | 2.75* | 3.75* | 3.75* | 3.23* |

**Grades not deliverable on contract. †On Middling
*Off Middling.

EGYPTIAN COTTON

| Alexandria Exchange, June 25 | | Change |
|---|---|---|
| July Sak | 28.00 | ..... |
| August uppers | 15.55 | 0.90 |

# Wool

OHIO, PENNSYLVANIA AND WEST VIRGINIA
(IN GREASE)

| | | | |
|---|---|---|---|
| Fine delne.. | $0.30 –$0.31 | ¾ blood..... | $0.29 –$0.30 |
| Fine clthg.. | .23 – .24 | ½ blood..... | .29 – .30 |
| ¼ blood..... | .29 – .30 | | |

TEXAS AND CALIFORNIA
(CLEAN BASIS)

| | |
|---|---|
| Texas, 12 months | $0.73 –$0.75 |
| California, Northern | .65 – .68 |

PULLED—EASTERN (CLEAN BASIS)

| | | | |
|---|---|---|---|
| AA..... | $0.75 –$0.78 | B-Super... | $0.57 –$0.60 |
| A-Super.... | .63 – .68 | C-Super... | .53 – .55 |

MONTANA, IDAHO AND WYOMING
(CLEAN BASIS)

| | |
|---|---|
| Staple fine | $0.75 –$0.78 |
| Staple ¾ bld. | .70 – .73 |
| Fine and fine medium | .70 – .72 |
| ¾ blood | .60 – .63 |
| ½ blood | .55 – .58 |

MOHAIR—DOMESTIC

| | |
|---|---|
| Best Carding | $0.38 –$0.40 |
| Best combing | .53 – .55 |

MOHAIR FOREIGN (IN BOND)

| | |
|---|---|
| Turkey fair, average | $0.28 –$0.30 |
| Cape firsts | .28 – .30 |

FOREIGN CLOTHING AND COMBING
(CLEAN BASIS IN BOND)

| | |
|---|---|
| Australia: | |
| 70s | $0.65 –$0.70 |
| 64s | .53 – .55 |
| 58s-60s | .46 – .48 |

(IN GREASE)

| | |
|---|---|
| Montevideo: | |
| 58-60s | $0.25 –$0.26 |
| 56s | .25 – .26 |
| 50s | .23 – .24 |
| Buenos Aires: | |
| 4s, 40-44s | $0.22 –$0.23 |
| 5s, 36-40s | .20 – .21 |

FOREIGN CARPET (GREASE BASIS IN BOND)

| | |
|---|---|
| Aleppo | $0.30 –$0.31 |
| China: Combing No. 1 | .17 – .19 |
| China Filling Fleece | .16 – .17 |
| Szechuen ass't | .17 – .18 |
| Cordova | .17 – .18 |
| Scotch black face | .20 – .21 |
| East India: Kandahar | .26 – .27 |
| Vican'r | .28 – .30 |
| Joria | .29 – .31 |

# Worsted Yarns

ENGLISH SYSTEM WEAVING

| | |
|---|---|
| 2-20s, 36s | $0.92½–$0.95 |
| 2-24s, 40s | 1.02½– 1.05 |
| 2-26s, 44s | 1.10 – 1.12½ |
| 2-28s, 46s | 1.15 – 1.17½ |
| 2-30s, 48s | 1.20 – 1.22½ |
| 2-32s, 50s | 1.25 – 1.27½ |

(Single yarns 5c. less than above)

| | |
|---|---|
| 2-36s, 58s | $1.35 –$1.40 |
| 2-40s, 60s | 1.47½– 1.50 |
| 2-40s, 64s | 1.55 – 1.57½ |
| 2-50s, 66s | 1.72½– 1.75 |
| 2-60s, 70s | 2.15 – 2.20 |

ENGLISH SYSTEM KNITTING

| | |
|---|---|
| 2-20s, 44s in oil | $0.95 –$0.97½ |
| 2-20s, 50s in oil | 1.07½– 1.10 |
| 2-20s, 56s in oil | 1.17½– 1.20 |
| 2-20s, 60s in oil | 1.32½– 1.35 |
| 2-20s, 64s in oil | 1.40 1.42½ |
| 1-15s, 46s dyed | 1.15 – 1.17½ |
| 1-15s, 48s dyed | 1.17½– 1.20 |
| 1-15s, 50s dyed | 1.20 – 1.22½ |

(Oil yarns 17½c. less)

FRENCH SYSTEM

| | |
|---|---|
| 1-20s, 58s | $1.22½–$1.25 |
| 1-20s, 60s | 1.27½– 1.30 |
| 1-18s, 64s, Dyed | 1.50 – 1.52½ |
| 1-26s, 64s | 1.30 – 1.32½ |
| 1-30s, 60s, Warp | 1.37½– 1.40 |
| 1-30s, 64s, Warp | 1.42½– 1.45 |
| 2-30s, 64s, Fancy mixes | 1.70 – 1.72½ |
| 2-40s, 64s, Zephyrs | 1.65 – 1.70 |
| 1-50s, 66s | 1.65 – 1.67½ |
| 2-50s, 66s | 1.80 – 1.82½ |
| 1-60s, 70s | 2.07½– 2.10 |
| 2-60s, 70s | 2.25 – 2.30 |

FRENCH SPUN MERINO WHITE

| | |
|---|---|
| 1-30s, 50-50-58s on cops | $1.05 –$1.07½ |
| 1-40s, 50-50-60s on cops | 1.20 – 1.25 |
| 1-40s, 50-50-64s on cops | 1.22½– 1.25 |
| 1-40s, 50-50-64s Australian cops | 1.30 – 1.35 |

Underwear mixes, 3c. additional.
Solid color, 35c. additional.

◆

# Tops and Noils

TOPS—BOSTON

| | |
|---|---|
| Fine (64-66s) | $0.98 –$1.00 |
| Half-blood (60-62s) | .91 – .93 |
| High ¾ blood (58s) | .83 – .85 |
| Aver. ¾ blood (56s) | .80 – .83 |
| Low ¾ blood | .78 – .80 |
| High ½ blood (50s) | .73 – .75 |
| 46s S. A. and N. Z. | .65 – .70 |
| 44s S. A and N. Z. | .65 – .68 |
| 40s S. A and N. Z. | .63 – .65 |

TOPS—BRADFORD, ENG. (JUNE 26)

| | | | |
|---|---|---|---|
| Fine (70s) | 31 d | ¾ bld. (56s) | 21½d |
| Fine (64s) | 28 d | ½ bld. (50s) | 18d |
| ¾ bld. (60s) | 26 d | Cross-bred (46s) | 15½d |
| ¾ bld. low (58s) | 23½d | | |

NOILS—BOSTON

| | | | |
|---|---|---|---|
| Fine | $0.57–$0.60 | High ¾ bld.. | $0.44–$0.47 |
| Half-bld.... | .53– .55 | Low noils... | .40– .42 |
| Aver. ¾ bld.. | .45– .48 | Medium colored... | .40– .42 |
| Fine colored | .46– .48 | | |

# Wool Substitutes

WOOL WASTE

| | |
|---|---|
| Lap, fine white | $0.83 –$0.88 |
| Lap, fine colored | .58 – .63 |
| Hard ends, fine white | .65 – .68 |
| Hard ends, ¼ blood white | .45 – .48 |
| Hard ends, fine colored | .30 – .33 |
| Hard ends, medium colored | .23 – .28 |
| Card, fine White | .35 – .38 |
| Burr, fine Carbonizing | .38 – .43 |

OLD WOOLEN RAGS (GRADED FOR MFRS.)

| | |
|---|---|
| Merinos, Coarse Light | $0.06¼–$0.07 |
| Merinos, Fine Dark | .04½– .05 |
| Merinos, Fine Light | .15½– .16½ |
| Serges, Blue | .08½– .09 |
| Serges, Black | .08 – .09 |
| Serges, Red | .11 – .11½ |
| Knit, White | .32 – .33 |
| Knit, Red | .16 – .17 |
| Knit, Light Hoods | .16 – .17 |
| Worsted, Light | .05½– .06 |
| Worsted, Blue | .08½– .09 |
| Worsted, Black | .08 – .09 |

# Silk Yarns

THROWN SILK (60 day basis)

| | |
|---|---|
| Japan organzine, 2 thd. grand XX in skeins | $5.10 |
| Japan organzine, 2 thd. sp. crack in skeins | 4.95 |
| Japan crepe, 3 thd. grand XX in bobbins | 5.00 |
| Japan crepe, 3 thd. sp. crack on bobbins | 4.90 |
| Japan crepe, 4 thd. crack on bobbins | 4.75 |
| Canton crepe, 3 & 4 thd. ns. 14/16 on bobbins | 2.90 |
| Tussah tram, 2 end on cops | 2.00 |
| Hosiery tram, 3 thd. Japan XXX | 5.60 |
| Hosiery tram, 4 thd. Japan, selec. gd. XX | 5.10 |
| Hosiery tram, sp. crack XX | 4.35 |
| Hosiery tram, crack XX | 4.25 |
| Hosiery tram, XX | 4.15 |

SPUN SILK YARNS—(Terms: net 30)

| | | | |
|---|---|---|---|
| 40/2 | $3.85 | 60/2 | $4.20 |
| 50/2 | 4.05 | 62/1 | 3.00 |

# Raw Silk

(60 day basis,
Prices Nominal)

| | Spot | New Season |
|---|---|---|
| Japan filature, grand XX, 13/15 | $3.95 | $3.30 |
| Japan filature, sp. crack XX, 13/15 | 3.85 | 3.20 |
| Japan filature, crack XX, 13/15 | 3.75 | 3.10 |
| Japan filature, XX, 13/15 | 3.55 | 3.00 |
| Japan filature, best X, 13/15 | 3.50 | 2.95 |
| Canton filature, new style, 14/16 | 1.85 | 1.50 |
| Canton filature, new style, 20/22 | 1.75 | 1.40 |
| Tussah filature, 8 cocoon | 1.35 | 1.00 |
| Grand XX (Yellow) 20/22 | 3.20 | 2.80 |
| Grand XX (White) 20/22 | 3.25 | 2.90 |
| Sp. crack (Yellow) 20/22 | 3.20 | 2.75 |
| Sp. crack (White) 20/22 | 3.20 | 2.80 |
| Crack (Yellow) 20/22 | 3.10 | 2.60 |
| Crack (White) 20/22 | 3.15 | 2.80 |

NATIONAL RAW SILK EXCHANGE

| | Close June 25 | For the Week High | For the Week Low | Close June 30 | Net Chge. |
|---|---|---|---|---|---|
| June | 3.25 | 3.25 | 3.20 | .... | .... |
| July | 3.05 | 3.10 | 2.90 | 2.92 | —.13 |
| August | 3.04 | 3.06 | 2.86 | 2.89 | —.15 |
| September | 3.00 | 3.05 | 2.86 | 2.89 | —.11 |
| October | 3.01 | 3.05 | 2.87 | 2.89 | —.12 |
| November | 3.01 | 3.04 | 2.87 | 2.88 | —.13 |
| December | 3.01 | 3.05 | 2.88 | 2.88 | —.13 |
| January | 3.01 | 3.03 | 2.87 | 2.88 | —.13 |
| February | .... | 3.01 | 2.87 | 2.88 | .... |

June 25 to June 30—Total contracts, 461. Total number of bales, 4,610. Total approximate value, $1,765,814.

# Domestic Rayon

VISCOSE PROCESS

| Denier | Filament | First | Second |
|---|---|---|---|
| 50 | 14 | $2.30 | $2.00 |
| 75 | 18 | 1.85 | 1.65 |
| 75 | 30 | 1.95 | 1.75 |
| 100 | 18 | 1.45 | 1.35 |
| 100 | 40 | 1.50 | 1.40 |
| 125 | 18 | 1.45 | 1.25 |
| 125 | 36 | 1.30 | 1.20 |
| 150 | 24 | 1.15 | 1.10 |
| 150 | 32 | 1.15 | 1.10 |
| 150 | 36 | 1.20 | 1.15 |
| 150 | 60 | 1.35 | 1.30 |
| 150 | 75 | 1.50 | .... |
| 170 | 24–27 | 1.15 | 1.10 |
| 170 | 60 | 1.35 | 1.30 |
| 200 | 30 | 1.05 | 1.00 |
| 200 | 32 | 1.10 | 1.05 |
| 200 | 60 | 1.30 | 1.25 |
| 300 | 44 | .95 | .90 |
| 400 | 72 | 1.10 | .95 |
| 450 | 54 | 1.00 | .95 |
| 600 | 72–96 | 1.00 | .95 |
| 900 | 100–144 | 1.00 | .95 |

NITRO-CELLULOSE PROCESS

| Denier | First Qual. | Second Qual. | Denier | First Qual. | Second Qual. |
|---|---|---|---|---|---|
| 35 | $3.50 | $3.25 | 125 | $1.30 | $1.20 |
| 50 | 2.25 | 1.90 | 140 | 1.15 | 1.10 |
| 75 | 1.85 | 1.65* | 150 | 1.15 | 1.10 |
| 100 | 1.45 | 1.35 | 160 | 1.15 | 1.10 |
| | | | 175 | 1.15 | 1.05 |

CUPRAMMONIUM PROCESS

| Denier | Filament | Price | Denier | Filament | Price |
|---|---|---|---|---|---|
| 15 | 25 | $4.15 | 40 | 30 | $3.15 |
| 25 | 25 | 3.65 | 52 | 30 | 3.00 |
| 30 | 25 | 3.40 | | | |

(Due to diversified offerings prices for higher denier are not listed.)

ACETATE PROCESS

| Denier | Price | Denier | Price |
|---|---|---|---|
| 45 | $2.75 | 120 | $1.90 |
| 55 | 2.55 | 150 | 1.60–1.85 |
| 75 | 2.25–2.70 | 200 | 1.55 |
| 100 | 2.00–2.45 | 300 | 1.50 |

# Rayon Waste

Prices Nominal

| | |
|---|---|
| Open bleached waste | –$0.18 |
| Open unbleached waste | .–.15 |
| Bleached thread waste (mfs.) | .–.12 |
| Bleached thread waste (misc.) | .11–.12 |
| Colored thread waste | .08–.10 |
| Colored clips | .–.07½ |

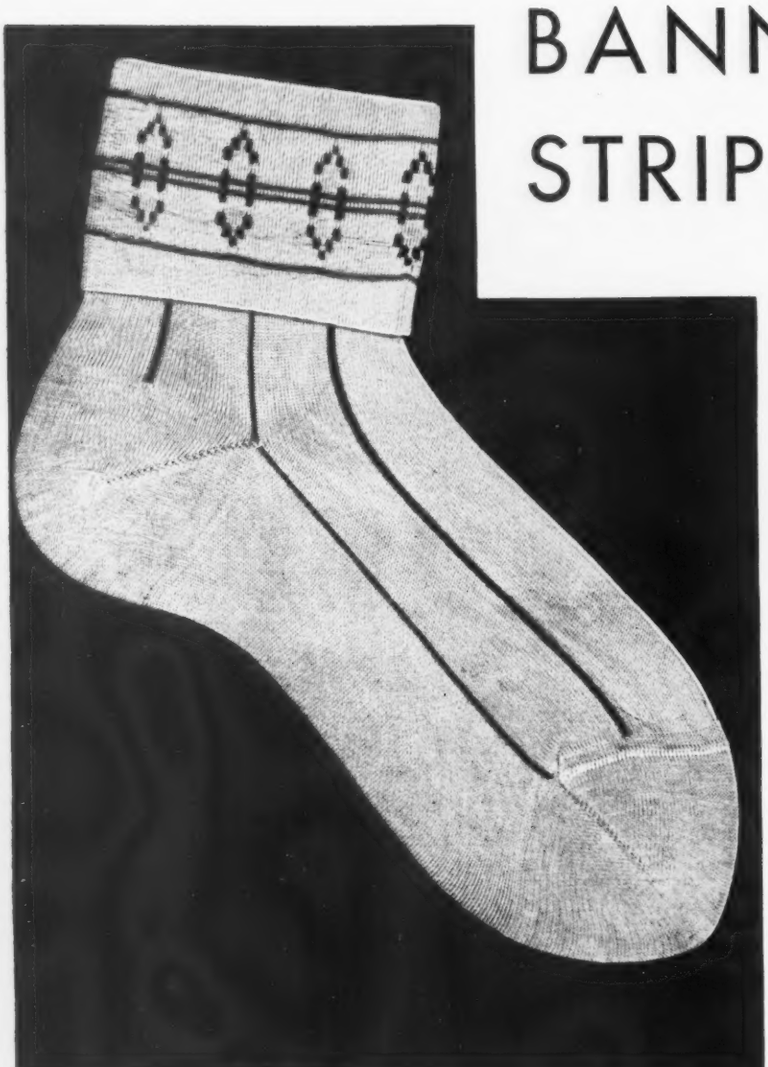
CONVERTED RAYON WASTE

| | |
|---|---|
| Bleached tops | –$0.49 |
| Unbleached tops | .–.43 |
| Bleached noils | .–.18 |
| Bleached garnets | .–.18 |
| Unbleached garnets | .–.16 |
| Colored garnets | .–.14 |

# Silk Waste

| | |
|---|---|
| Kibizzo Kikai Grand XX | $0.85 |
| Kibizzo Kikai Triple Extra | .92 |
| Frison Grand Double | .90 |
| Pierced Cocoons | 1.12 |

# NO IDLE MACHINES ON BANNER WRAP STRIPE ANKLETS



Child's anklet made of silk plated over rayon, two colors in the wrap stripes with the raised effect of hand embroidery; additional color in horizontal stripe in cuff, knit under wrap stripe ornamentation.

WHETHER the machine has started the style or whether the style has built a demand for the machine, the fact remains that all Banner Wrap Stripe Machines on misses', children's and infants' anklets are running full time. With 8 color feeds and the Banner horizontal striper this machine is the finest producer of high-grade anklets obtainable. Supplied with 3-inch, 3¼-inch, 3½-inch cylinders and as fine as 25 needles per inch, for silk, rayon or plated combinations . . . Reasonably prompt deliveries.

## HEMPHILL COMPANY

Pawtucket, R. I.

93 WORTH STREET, NEW YORK

PHILADELPHIA
213 So. Broad St.

CHATTANOOGA
James Bldg.

HIGH POINT
Commercial Bank Bldg.

**THE BANNER FULL AUTOMATIC WRAP STRIPE MACHINE**

## Textiles on N. Y. Exchanges

The following shows the movements of the leading textile stocks listed on the New York Stock Exchange and Curb for the week ended July 1:

| | High | Low | Last Sale | Net Change |
|---|---|---|---|---|
| Adams Millis | 28 | 27 | 27¼ | + ¼ |
| *American Thread, pfd | 3½ | 3½ | 3½ | ..... |
| American Woolen | 11½ | 11½ | 11½ | — ½ |
| American Woolen, pfd | 31½ | 31½ | 31½ | + 1½ |
| *Assoc. Rayon, pfd | 40½ | 38½ | 38½ | — 4½ |
| Belding-Hemingway | 4½ | 4 | 4 | — ½ |
| *Blumenthal | 25½ | 25½ | 25½ | — ½ |
| Botany Mills, A | 3 | 3 | 3 | ..... |
| Cannon Mills | 21½ | 20 | 21½ | + 1½ |
| Century Ribbon | 5 | 3½ | 5 | + 1½ |
| Collins & Aikman | 22¼ | 20½ | 21½ | + 1½ |
| Consolidated Textile | 1 | ½ | ½ | ..... |
| *Courtalds, Ltd | 10½ | 10½ | 10½ | + ½ |
| *Fabrics Finishing | 4½ | 4½ | 4½ | + ½ |
| Gotham Hosiery | 12½ | 9½ | 12 | + 2½ |
| Industrial Rayon | 89½ | 73 | 78½ | — 8½ |
| Kayser, Julius | 26½ | 24½ | 26 | + 1½ |
| Mallison | 10½ | 8 | 10 | + 1½ |
| Mohawk Carpet | 18½ | 17 | 17½ | + ½ |
| Munsingwear | 45 | 45 | 45 | + 3½ |
| Pacific Mills | 22¼ | 21¼ | 21¼ | — 1 |
| *Pepperell | 89 | 85 | 86 | — 3 |
| Phoenix Hosiery | 15 | 15 | 15 | + 4 |
| *Propper-McCallum | 7½ | 7½ | 7½ | — ½ |
| Real Silk Hosiery | 40½ | 38¼ | 40¼ | + ¼ |
| *Tubize Chat. B | 8½ | 6¼ | 8 | + 1 |
| United Piece Dye Works | 25½ | 24 | 25½ | + 2½ |

*Listed on curb.

## New England Textile Stocks

Quotations at "Public Sale" are based on last sales at Boston Public Auctions and Boston Stock Exchange. Bid and Asked prices are latest quotations of leading Boston dealers.

| | Public Sale | Bid | Asked |
|---|---|---|---|
| Am. Mfg. pfd | 68 | 61 | 66 |
| Amoskeag | 12 | ... | ... |
| Arlington | 23½ | 22 | 24 |
| Associated Textile | 36½ | 34 | 37 |
| Bates | 63 | 80 | 84 |
| Berkshire Associates, com | 18½ | 15 | 17 |
| Berkshire Associates, pfd | 70½ | 69 | 72 |
| Bigelow-Sanford, com | 55 | ... | ... |
| Boott Mills | 120½ | 110 | 115 |
| Edwards | 80½ | 80 | 85 |
| Esmond, pfd | 102 | 100 | 102 |
| Farr Alpaca | 67 | ... | 71 |
| Hamilton Woolen | 40 | 38 | 41 |
| Hill | 18 | 18 | 23 |
| Indian Orchard | 20½ | 10 | 15 |
| Ludlow | 136 | 136 | 138 |
| Merrimack, com | 50½ | 49 | 53 |
| Nashua, com | 32½ | 27 | 31 |
| Nashua, pfd | 77½ | 71 | 73 |
| Naumkeag | 86 | 86 | 88 |
| Newmarket | 25½ | 23 | 27 |
| Otis | 49½ | 44 | 47 |
| Pacific | 21 | ... | ... |
| Pepperell | 94 | 90 | 92 |
| Plymouth Cordage | 82 | 75 | 80 |
| York | 8½ | 9 | 11 |

## N. Carolina Mill Stocks

(R. S. Dickson & Co., Charlotte, N. C.)

| | Bid | Ask |
|---|---|---|
| Acme Spinning Co | 70 | 76 |
| American Yarn and Processing Co | .. | 80 |
| Chadwick-Hoskins Co. (Par. $25) | 8 | 12 |
| Chadwick-Hoskins Co., 8%, Pfd | 99 | 101 |
| China Grove Cotton Mills | 100 | 107 |
| Climax Spinning Co | 60 | 68 |
| Clover Mills | .. | 25 |
| Converse D. E. Co | 90 | 95 |
| Crescent Spinning Co | 58 | 62 |
| Dixon Mills | 90 | 100 |
| Durham Hosiery, 6%, Pfd | 42 | 50 |
| Eagle Yarn Mills | 62 | 75 |
| Efird Mfg. Co | 79 | 88 |
| Erwin Cotton Mills | .. | 120 |
| Erwin Cotton Mills Co., 6%, Pfd | 92 | 97 |
| Flint Mfg. Co | .. | 85 |
| Flint Mfg. Co., 7%, Pfd | .. | 99 |
| Globe Yarn Mills (N.C.) | .. | 20 |
| Gray Mfg. Co | .. | 82 |
| Hanes, P. H. Knitting Co | 8 | 10½ |
| Hanes, P. H. Knitting Co., 7%, Pfd. | 96 | 101 |
| Henrietta Mills, 7%, Pfd | 44 | 55 |
| Imperial Yarn Mills | .. | 60 |
| Linford Mills | 65 | 76 |
| Locke Cotton Mills Co | .. | 76 |
| Majestic Mfg. Co | 115 | 135 |
| Mansfield Mills | 64 | 82 |
| Mooresville Cotton Mills | 6 | 8 |
| Mooresville Cotton Mills, 7%, Prior Pfd | .. | 88 |
| Myers Mills | .. | 76 |
| Myrtle Mills | .. | 53 |
| National Yarn Mill | 54 | 65 |
| Perfection Spinning Co | 60 | 70 |
| Ranlo Mfg. Co | .. | 115 |
| Ranlo Mfg. Co., 7%, Pfd | .. | 100 |
| Roanoke Mills | 65 | .. |
| Roanoke Mills, 1st Pfd., 7% | 91 | 96 |
| Roanoke Mills, 2nd Pfd., 8% | 91 | 97 |
| Rosemary Mfg. Co., Pfd., 7% | 98 | .. |
| Rowan Cotton Mills Co | 70 | 80 |
| Seminole Cotton Mills Co | .. | 76 |
| Sterling Spinning Co | 60 | 78 |
| Stowe Spinning Co | 63 | 77 |
| Victory Yarn Mills Co | 39 | 50 |
| Ware Shoals Mfg. Co., 7%, Pfd | 98 | 101 |
| Winget Yarn Mills Co | 40 | 50 |
| Wiscassett Mills Co | 180 | 190 |

## Textile Calendar

American Association of Textile Chemists and Colorists, Piedmont Section, Quarterly Meeting, Charlotte, N. C., July 12, 1930.

•

National Association of Waste Material Dealers, Organization Meeting of Wiping Cloth Division, Congress Hotel, Chicago, July 14-15, 1930.

•

Worsted Yarn Spinners' Annual Outing, Manufacturers' Country Club, Oreland, Pa., Sept. 24, 1930.

•

National Safety Congress, Textile Section, Annual Meeting, William Penn Hotel, Pittsburgh, Pa., Sept. 30-Oct. 1, 1930.

National Association of Cotton Manufacturers, Annual Meeting, Poland Springe, Me., early in October (exact date not available).

•

Ninth Southern Textile Exposition, Textile Hall, Greenville, S. C., Oct. 20-25, 1930.

•

Textile Division, A.S.M.E., National Meeting, Poinsett Hotel, Greenville, S. C., Oct. 22, 1930.

•

Southern Textile Association, Semi-Annual Meeting, Poinsett Hotel, Greenville, S. C., Oct. 23, 1930.

## Central Jute Committee Accepted by Indian Government

The Government of India has just announced its approval in principle of the formation of a Central Jute Committee, recommended in 1928 by the Royal Commission on Agriculture, which planned the establishment of an Imperial Council of Agriculture Research, the object of which would be to promote, guide and coordinate agricultural research in India and to link it with agricultural research in other parts of the British Empire and in foreign countries, according to Assistant Trade Commissioner Wilson C. Flake, Bombay, in a report to the Department of Commerce.

However, the government is not prepared to accept the recommendation that the committee be financed by grants from Central Government revenue. It was pointed out that some trades probably would wish to do special research on the products of particular interest to them, in which case the trades concerned were to supply the funds. But in the case of jute an exception was made.

## Los Angeles Adds to Cotton-Handling Capacity

LOS ANGELES, CALIF.—Construction will start immediately on a new $166,000 steel and concrete unit for the Los Angeles Compress & Warehouse Co. at Los Angeles Harbor. The addition will increase the capacity of the port warehouse 50%.

The new unit will contain 150,000 square feet of storage area and will warehouse 24,000 bales of cotton, as compared with the present 50,000 bale capacity of the present 12-acre warehouse. The building will be completed in time to receive the September cotton crop. Cotton exports from Los Angeles Harbor during the 1930-31 season are likely to exceed the 325,000-bale record of the season just closed.

## Fitchburg Yarn Co. Cuts Sase Spun Yarn Prices

The Fitchburg Yarn Co., of Fitchburg, Mass., Wednesday confirmed reports of a reduction in Sase brand spun yarn prices, which was made possible by increased output. Prices follow:

| Numbers | Single | Two-ply |
|---|---|---|
| 3 | $.85 | $.86 |
| 6 | .86½ | .87½ |
| 8 | .87 | .88 |
| 10 | .90 | .92 |
| 12 | .92 | .95 |
| 14 | .95 | 1.00 |
| 17½ | 1.02 | 1.06 |
| 20 | 1.12 | 1.17 |
| 26 | 1.16 | 1.21 |
| 30 | 1.20 | 1.26 |
| 35 | 1.25 | 1.32 |
| 40 | 1.30 | 1.37 |
| 50 | 1.40 | 1.48 |
| 60 | 1.48 | 1.58 |
| 70 | 1.56 | 1.68 |
| 80 | 1.68 | 1.90 |
| 90 | 1.75 | 2.00 |

The price for the new Sase Doupioni which has been recently introduced is for the new 1-A type cones, $1.30, cops $1.40, the size of the yarn being equivalent to a 22-1 spun silk yarn.

## Pepperell Has Not Sold Water Rights or a Mill

Pepperell Mfg. Co., Biddeford, Me., has not sold water power rights and a cotton mill to the Cumberland County Power & Light Co., as reported in the mill news columns of this paper last week. This information came from a source believed to be trustworthy but the Pepperell company states that it is an error.

## Dehen Mills Plan Retail Outlet Chain

The Dehen Knitting Mills, Portland, Ore., has adopted the policy of opening retail stores and the first retail outlet was established June 23 in Portland. W. P. Dehen, president of the company, states that he believes it is possible to feature a more aggressive sales program.

# HOOKER CHEMICALS

*..of the Highest Quality...*

**Every product, every process has originated in or passed thru our Research Department. We are justly proud of this painstaking care in development and production. It guarantees you Hooker Chemicals of the Highest Quality.**

**With plants conveniently located and our policy of carrying ample stocks of materials on hand at all times, we are prepared to make prompt and efficient deliveries to all sections of the country.**

**HOOKER CHEMICALS**

**Caustic Soda**
**Liquid Chlorine**
**Bleaching Powder**
**Muriatic Acid**
**Monochlorbenzene**
**Paradichlorbenzene**
**Benzoate of Soda**
**Benzoic Acid**
**Benzoyl Chloride**
**Benzyl Alcohol**
**Antimony Trichloride**
**Ferric Chloride**
**Sulphur Monochloride**
**Sulphur Dichloride**
**Sulphuryl Chloride**
**Salt**

## HOOKER ELECTROCHEMICAL CO.

**EASTERN**
**Plant -- Niagara Falls, N. Y.**
**Sales Office--60 East 42nd Street, New York**

**WESTERN**
**Plant --Tacoma, Washington**
**Sales Office --Tacoma, Washington**

# Overproduction Main Topic at Canadian Silk Ass'n. Convention

CERTAIN divisions of the silk industry of Canada are facing the prospect of overproduction, and steps should be taken to meet this problem, P. R. Watson, president of the Silk Association of Canada, told the members of that organization at their fifth annual convention, held in Toronto last week. This question of unjustified expansion was a chief topic of discussion at the convention.

Delegates from mill companies all over Ontario and Quebec attended, and they expressed optimism as to the future of the industry, but agreed that there was quite sufficient machinery for full-fashioned hosiery and other lines in Canada to take care of present requirements and those of the future as far as the present outlook is concerned.

Following an address by Dr. Speakman, of the Ontario Research Foundation, who outlined the functions of the foundation and the possibilities of utilizing its facilities in the interests of the silk industry, the president of the Silk Association spoke. He stated that progress in the silk industry in Canada had been continued during the past year through the establishment of new mills or the enlargement of present plants until today 65 mills are in operation manufacturing silk from raw material.

WARNS OF OVEREXPANSION

"At the same time," said Mr. Watson, "our association has progressed along certain lines, although the development of its activities was materially retarded due to circumstances over which we had no control. Efforts of the directors have been in the most part directed towards securing better enforcement of existing customs laws, more suitable valuation of imports for duty purposes, and greater protection against the importation of goods from those countries where labor costs are extremely low. With the rapid growth evident in the silk manufacturing industry during the past few years there is a grave danger of overexpansion with the resultant overproduction, and it is imperative that a thorough study be made of the conditions as regards productive capacity of existing mills and the market situation, so that a true picture of conditions within the industry may be available.

TARIFF PROTECTION NEEDED

"In considering the development of the industry from this point of view attention must be given, not only to the relation of production of our mills to the market in Canada, but to the effect of increasing competition, for it must be remembered that the manufacture of silk products is increasing rapidly in many foreign countries where labor costs are abnormally low and with whom it may be impossible to compete without greater tariff protection.

"There are many factors to be taken into consideration before a decision is made increasing the productive capacity of a mill or establishing a new mill, and many industrial difficulties developed during the past year as the result of the lack of intelligent consideration of these factors. This fact alone should amply justify the collection and compilation of statistical data by the association."

The secretary's report showed that the active membership of the association was increased during the year from 36 to 45 and further referred to the co-operation received in connection with the work of the association from those who are not active members.

The following officers for the ensuing year were elected: President, P. R. Watson, general manager, Grout's, Ltd., St. Catharine's, Ont.; vice-president, A. E. Stewart, Dominion Silk Mills, Ltd., Toronto; committee, J. Beaubien, Lyons, Ltd., Montreal; I. I. Bruick, Bruick Silk Mills, Montreal; B. Taylor, Courtauld's, Ltd., Toronto and Cornwall; J. A. Bonneville, Belding-Corticelli Co., Montreal; A. R. Greene, Summit Dyeing Co., Toronto.

## Plied Cotton Yarns Finer Than 90% Take 37% Duty

In the tariff summary published on page 42 of our June 21, 1930, issue there was an error in the rate under the new law for cotton yarns, bleached, dyed, colored, combed or plied finer than number 90. This should have been 37%. This rate appears in subdivision *b* of paragraph 901 and it is further modified by paragraph 924 which provides 10c. per pound additional duty for all articles enumerated in schedule 9 except rags, on the cotton contained therein having staple of 1⅛ in. or more in length.

## N. C. State Lists 67 Items Of Service to Mills This Year

The Textile School of North Carolina State College, Raleigh, N. C., has during the last school year been called upon for service by mills more than in any previous year. The school has listed 67 tests, analyses and surveys which it has performed since July 1, 1929 and they cover a wide range. It is the desire of the faculty to make the school a real service department for the textile industry. The work is done both by students and factulty on request of mills which want enlightenment on problems.

## Australia Growing Market For Hosiery Machines

Australia's policy of developing home manufacture is bringing quick results, according to late figures, and instead of being a big purchaser of American-made hosiery, Australia now is becoming a big purchaser of American-made hosiery machinery. The growth of the Australian hosiery industry is illustrated in the statement by Staley & Staley, Ltd., hosiery manufacturers, of Brunswick, that the company expects to use "66,000,000 miles of raw silk" in 1930 as against 17,160,000 in the last year. The company's new plant at Brunswick is equipped with modern machinery and the total mill space there now approximates two acres.

## Columbia University Given Collection of Books on Weights and Measures

Columbia University, New York, recently announced receipt of a collection of unique and ancient book dealing with weights and measures from Samuel S. Dale of Boston. Mr. Dale, who was formerly editor of the *Textile World Record*, a predecessor of TEXTILE WORLD, said the collection included "as far as possible a copy of every book, pamphlet and governmental document dealing with the origin, history, development and science of weights and measures issued in any language at any time."

The collection, comprising between 1,000 and 1,200 books and 700 pamphlets, published from 1520 to the present, was given in memory of the donor's father and mother, Thomas and Fanny Dale of Little Falls, N. Y.

## Thermal Transmission Of Fabrics

*(Continued from page 59)*

1° F., they may also be converted to B.t.u. per sq.ft. per hour per 1° F., as shown in Table I.

The results may also be expressed in a relative manner which may prove of more practical value in enabling one readily to grade textile fabrics as they are without reference to thickness and weight. In order to do so one must look upon the bare calorimeter wall as furnishing no degree of protection. When supplied with 0.427 watts in nominally still air, or with 2.325 watts with a wind velocity of 14.2 miles per hour, it may be said to have an insulation factor of unity. Then specimen No. 1, with a wattage of 0.311, would have an insulation factor of 0.427 divided by 0.311 = 1.37 in nominally still air, and a factor of 2.325 divided by 0.613 = 3.79 in air moving at 14.2 miles per hour. To obtain a relative measure of thermal insulation, and recognizing the danger of placing too much dependence upon temperature readings in nominally still air, the figures with wind velocity (14.2 miles per hour) are used to give the insulation factors shown in the table.

Grateful acknowledgment is made of the valuable assistance of Erich Hausmann and his associates of the Brooklyn Polytechnic Institute, in the design of the apparatus, and to the Boyce Moto-Meter Co. for the construction of the calorimeter and thermometer.

## Hosiery Workers Elect New Officers

PHILADELPHIA. Emil Rieve was reelected president of the American Federation of Full-Fashioned Hosiery Workers at their annual convention, June 27, and William Smith was chosen secretary-treasurer. Term of both offices is two years. Mr. Smith is completing his third term and Mr. Rieve was completing the unexpired term of Gustav Geiges who resigned to enter the employ of Gotham Silk Hosiery Co.

Office of second vice-president was created this year and Harold E. Steele, Milwaukee, was elected to this office. Carl Holderman, Paterson, N. J., was elected first vice-president. National executive board was increased to 13 members, an addition of two, in line with plans of the federation for centralizing the legislative work and expanding the powers of the board.

## Outing of Manufacturers Textile Association of Worcester

The annual outing of the Manufacturers Textile Association of Worcester County, Mass., took place at the Pomham Club, Riverside, R. I., Thursday, June 26. Members and guests had a fine time together at this well-equipped and beautifully located club overlooking the bay. The weather allowed the usual indulgence in out-of-door sports including bowling, quoits, obstacle golf and other games. Members began to arrive around 11 o'clock and found luncheon awaiting them. Cancellations cut down the attendance to 55. Eben S. Cleveland, secretary of the association, made all necessary arrangements for the comfort and entertainment of the association. At the dinner which followed in the early afternoon were a number of professional entertainers from Boston and Hartford.

## Textile Color Card Association Scholarship Awards

At the commencement exercises of the New York Textile High School held in the City College Auditorium recently Miss Marjorie McGowan, a member of the graduating class, was awarded the scholarship established at that school by the Textile Color Card Association. The presentation was made by P. J. Wood, vice-president and manager of the Oriental Silk Printing Co., Paterson, N. J., who is a member of the board of directors of the Textile Color Card Association.

Textile Color Card Association Scholarships were previously awarded to Edward E. Golec of the Lowell Textile Institute and Richard Kerr Palmer of the Philadelphia Textile School, at the commencement exercises of these schools held the first week in June.

The three textile schools mentioned above, are the first to benefit from the scholarships which the Association established for the first time last year. The awards, amounting in all to approximately $1,000, are given to these students for their high rating in color appreciation and application. The recipients of the scholarships last June were present with the principals of their respective schools and commended at the fifteenth annual meeting and luncheon of the Textile Color Card Association last April.

## John Malloch & Co., Cotton House, Liquidates

John Malloch & Co., Boston, Mass., widely known cotton house specializing on Pima and Egyptian, liquidated as of July 1. Ralph Lawson, president and treasurer of the company, which was established 15 years ago, will become associated with Anderson, Clayton & Co., in charge of the Egyptian and Pima departments. George E. Benson, vice-president of the company is not ready at this time to make any definite announcement regarding his future plans. Joseph D. Taylor, also vice-president and in charge of the Phoenix, Ariz., office of the company, will continue with Martin Cotton Co. of that city.

## To Lay Cornerstone of Textile Engineering Building

The cornerstone of the textile engineering building of the Alabama Polytechnic Institute, Auburn, Ala., will be laid on the afternoon of July 14. R. F. Lovelady, grand master of the Grand Lodge A. F. & A. M. of Alabama will officiate.

## Jamison & Co. Named Agents For Gem Hosiery Co.

James Jamison & Co., Inc., of New York City, have been appointed sole selling agents of the Gem Hosiery Co., Philadelphia, and will handle that firm's line of women's fine gauge, spring needle silk hosiery, in regular and outsize widths.

## W. O. McDowell Joins John M. Given Co.

W. O. McDowell has joined the organization of the John M. Given Co., hosiery manufacturers agent, New York. He will make his headquarters at the New York office, 93 Worth Street.

## Spinner Opens N. Y. Office

Sterling cotton mills, Franklinton, N. C., manufacturers of 10s to 16s carded yarns, recently opened an office at 320 Broadway, N. Y. City, under the management of R. J. Hooker, for the direct sale of their products.

## Proposed Specifications Issued by Federal Specifications Board

The Federal Specifications Board has issued proposed Federal specifications on the following items: Colored wool waste, unshrunk brown denim, shrunk brown denim, shrunk and unshrunk indigo blue denim.

## M.I.T. Undertakes Research for N. E. Council

Mobilization of new research facilities for the benefit of New England business by the New England Council, is the purpose behind a cooperative experiment engaged in by the council's industrial committee and the engineering administration faculty of Massachusetts Institute of Technology, as a result of which some 25 senior students were this year put to work studying practical business questions act by the council.

At the same time, the students satisfied the requirements for their senior theses. That the results were of an ominently practical nature is indicated by the fact that they were heard with interest by members of the New England Council at its recent meeting, and the original theses are in demand by New England executives, being routed on a circulating library basis by the council.

## Calcutta Curtailment Plans Strengthen Burlaps

At mid-week, futures on the burlap exchange showed increased firmness due to reports of a stronger spot market and the program of the curtailed production in Calcutta mills. Buyers showed interest, but were unwilling to meet advanced views of sellers.

In the actual market the lessening of working hours in the mills served as a bullish factor in sellers' estimations.

The 8 oz. 40s for spot were 5.05-5.30c.; July shipment, 5.30c. The 10½ oz. 40s for spot were 6.45-6.75c.; July shipment, 6.65-6.70c.

## Piedmont Chemists to Meet at Charlotte

The Piedmont Section of the American Association of Textile Chemists and colorists will hold its next meeting at the Myer's Park Country Club, Charlotte, N. C., July 12, according to a recent announcement from A. R. Thompson, Jr., secretary.

## Navy Dept. Issues Bids for Sheetings

The Bureau of Supplies and Accounts, Navy Dept., Washington, D. C. will open bids at 10 a.m. July 8, for the following items: 150,000 yd. high count, bleached cotton sheeting 36-in. wide; 40,000 yd. high count, bleached cotton sheeting 39-in. wide.

## Silk Ass'n Offers N. Y.-Pa. Freight-Truck Service

An overnight combined freight and truck service which is expected to save shippers of raw silk between the New York market and Pennsylvania mills considerable time and money, has been perfected by the traffic bureau of the Silk Association of America, Inc., in cooperation with the United States Testing Co.

# Business News

### Rumor of The Jos. Noone's Sons Co. Sale Erroneous

An erroneous rumor has been prevalent in some quarters to the effect that The Jos. Noone's Sons Co. of Peterboro, N. H., has been sold.

In flatly denying this rumor, the company states that it is unable to understand definitely how the report started, but believes it may be due to the fact that the machinery and equipment of C. H. Noone & Co., located in South Boston, Mass., were sold recently. It states that C. H. Noone & Co. has not been at any time or in any way a part of The Jos. Noone's Sons Co. and has never attempted the manufacture of woolen goods. C. H. Noone & Co. was organized several years ago for the manufacture of wide cotton specialties by the late Chas. H. Noone, a brother of Albert W. Noone, owner and proprietor of The Jos. Noone's Sons Co.

The Jos. Noone's Sons Co., marketing its product through its sales agents, Wm. R. Noone & Co., continues as a prosperous concern and next year will have reached 100 years of service to the mechanical woolen trade.

### Additions to Personnel of the Sherman Corp.

The Sherman Corp., management and business engineers, with offices in New York, Boston, Chicago and Toronto, have made a number of additions recently to their management, merchandising and engineering staffs.

Norman E. Horton, formerly with the Seiberling Rubber Co. Ltd., Toronto, has assumed the duties of a sales and merchandising executive in the eastern district. A. S. Vogelgesang, on June 1 became director of the management division of the eastern district.

### General Dyestuffs Builds Charlotte Warehouse

Work began this week on a three-story warehouse, 60x110 ft., on the southeast corner of South Blvd. at Lexington Ave., Charlotte, N. C. The structure, which will represent an expenditure of $50,000, will be owned and occupied by the General Dyestuffs Co. The building will have an up-to-date dyestuff application laboratory, which will be the only laboratory in the South operated entirely by electricity. The company is at present located on W. Fifth Street.

### Hungerford & Terry Representation in South

W. A. Kennedy & Co., 1100 Johnston Bldg., Charlotte, N. C., are now southern sales representatives for Hungerford & Terry, Inc., and the Inversand Co., Inc., Clayton, N. J., engineers, designers and manufacturers of water purification plants, water softening zeolites and base-exchange silicates.

### Building Costs Lowest in 8 Years, Says H. C. Turner

The recent industrial depression has reduced building cost in the United States to the point where they present a real opportunity to the business man, asserts H. C. Turner, president of Turner Construction Co., New York and Chicago, in a statement just issued by that company.

"Building costs are lower than at any time in last eight years," says Mr. Turner, "and the man who builds now can do so at better prices than are likely to prevail again for some time. Today, building materials can be purchased at depression prices. Wages have not been reduced, but efficiency has decidedly increased. With the surplus of skilled workmen, the most capable and skilled are employed with the obvious increase in performance and the consequent reduction in labor cost."

### Guiseppe Faccioli, of G.E., Retires From Active Work

Guiseppe Faccioli, widely known electrical engineer, has retired from active participation in the affairs of the General Electric Co. because of ill health. Mr. Faccioli has relinquished his duties as Pittsfields works engineer and associate manager of the company, where he has been located since 1908, and assumed the position of consulting engineer.

### Sales Engineer of Reliance Boston Office

J. L. Van Nort has been advanced to sales engineer of the Boston office of the Reliance Electric & Engineering Co., Cleveland, manufacturers of a.c. and d.c. motors.

# Useful Catalogs

**Knitting information.** The Hemphill Co., Pawtucket, R. I., has issued a vest-pocket notebook containing information of value to knitters of hosiery, including comparative yarn tables, standard measurements of hosiery, comparison of shoe and hose sizes, relation between seamless and full-fashioned gauges, and a large table of information regarding Banner machines.

**Engineering.** Julian S. Simsohn, engineers, Philadelphia. Booklet discusses proper methods of treating boiler feedwater; also comments on coal analysis, and describes firm's services in the following divisions: steam and power surveys, power plant supervision, mechanical, electrical and structural plans, and designing of industrial buildings and power plants.

**Lathes.** South Bend Lathe Works, South Bend, Ind. Describes new 1930 18-inch lathe, for use in mills; tool rooms; and engineering, machine, and electrical shops, etc. Complete specifications of line.

**Warpers.** Draper Corp., Hopedale, Mass. Circular announces new high-speed warper, compactly built and designed to run at any rate of speed required.

**Automatic Boiler Feed.** Mears-Kane-Ofeldt, Inc., Philadelphia, Pa. Illustrated description with specifications of new MKO automatic boiler feed, for maintaining constant water level in high- and low-pressure boilers.

**Heating.** American Blower Corp., Detroit, Mich. Description with illustrations, of "Venturafin Method of Heating," discussing advantage and economies of Venturafin.

**Boilers and Steam Engines.** The James Leffel & Co., Springfield, O. Describes basic principles of Scotch marine boilers and steam engines. Also portable boilers, stokers, etc.

**Tanks.** W. E. Caldwell Co., Louisville, Ky. Fortieth annual price list of Caldwell products, brought up to date and including all principal lines.

**Waterproofing and Dampproofing.** The Master Builders Co., Cleveland, O. Folders giving complete descriptions and detailed specifications of waterproofing, dampproofing and concrete floor treatments; also folder analyzing resistance of concrete to stresses.

# Obituary

### George Marvin Cheney

George Marvin Cheney, regarded as one of the best authorities in the shuttle industry, died at his home in Southbridge, Mass., on June 23, from heart trouble, after a short illness. He was born in Southbridge on Aug. 24, 1861, and graduated from Yale in 1884 in the same class as the late president, William Howard Taft. Five years later he became associated with the Litchfield Shuttle Co., of Southbridge, of which his father, John M. Cheney, was then treasurer and superintendent. He advanced through the different departments of the plant and, when his father retired in 1907, he succeeded him in these two positions. In recent years he had also been purchasing agent for the company. He was a director of the American Shuttle Co.

### Luther C. Baldwin

Luther C. Baldwin, president of the U. S. Bobbin & Shuttle Co., Manchester, N. H., died recently. His connection with this firm made him widely known among textile men.

### J. D. Goins

J. D. Goins, superintendent of the weaving department of Erwin Cotton Mills No. 3, Cooleemee, N. C., for 28 years, died June 24 at the age of 62 years, following a stroke of paralysis sustained six weeks previously. He had also been judge of the recorder's court of Cooleemee.

### W. P. Hurt

W. P. Hurt, of Charlotte, N. C., who was regarded as one of the most expert carders in the South and was the author of numerous articles on the card room, died at Charlotte, N. C., last week, after a prolonged illness. He had been superintendent and overseer at various mills.

### Isaac Tinker

Isaac Tinker, formerly an overseer at the Assabet Mills of the American Woolen Co., Maynard, Mass., died recently at his home in Lowell, Mass. He leaves a widow.

### John P. Crane

John P. Crane, for 30 years superintendent of the Indian Orchard Co., Indian Orchard, Mass., died at his home in that town June 27, after two years' illness. He was born in Pittsfield, Mass., 68 years ago.